



COMMONWEALTH of VIRGINIA

VIRGINIA DEPARTMENT OF TRANSPORTATION

GREG WHIRLEY
COMMISSIONER

4975 Alliance Drive
Fairfax, VA 22030
(800) FOR-ROAD

December 9, 2011

TO: Mark Gibney

FR: Ed Azimi

RE: Route 7, Leesburg Pike Widening from Reston Ave. to DTR
Project #: 0007-029-128, B610, C502, P102, R202, & UPC# 52328/Act. 616.

Per your Location and Design LD-104 request dated July 21, 2011, we are forwarding you the traffic data that are needed for the Design Purposes. Due to school closing for the summer, we agreed to collect the traffic counts in mid-September. The following table provides you with the traffic collection information.

Route 7 at	Count Date	Period	PH Starting Time	
			AM	PM
Reston Pky	10/04/11	7:00am - 7:00pm	715	430
Utterback Store Rd	10/04/11	7:00am - 7:00pm	715	445
Bishopgate Way	09/29/11	7:00am - 7:00pm	715	500
Great Passage Blvd	09/29/11	7:00am - 7:00pm	700	500
Amanda Dr	09/29/11	7:00am - 7:00pm	700	500
Riva Ridge Dr	09/29/11	7:00am - 7:00pm	700	500
Baron Cameron Rd	10/13/11	7:00am - 7:00pm	700	430
Colvin Rd W	09/20/11	7:00am - 7:00pm	800	430
Colvin Forest Dr	09/27/11	7:00am - 7:00pm	745	430
Colvin Rd E	09/22/11	7:00am - 7:00pm	700	545
Faulkner Dr	09/27/11	7:00am - 7:00pm	730	430
Middleton Ridge Rd	09/27/11	7:00am - 7:00pm	745	415
Newcomb Farm Rd	09/29/11	7:00am - 7:00pm	745	445
Troting Horse Ln	09/29/11	7:00am - 7:00pm	715	430
Beulah Rd	09/22/11	7:00am - 7:00pm	730	545
Atwood Rd	10/19/11	7:00am - 7:00pm	730	445
Stokely Way	10/04/11	7:00am - 7:00pm	815	415

Towlston Rd	10/04/11	7:00am - 7:00pm	730	500
Trap Rd	10/06/11	7:00am - 7:00pm	730	415
Wolftrap Run Rd	10/06/11	7:00am - 7:00pm	715	430
Lewinsville Rd	10/11/11	7:00am - 7:00pm	715	530
Laurel Hill Rd	10/06/11	7:00am - 7:00pm	800	430
Jarrett Valley Dr	10/11/11	7:00am - 7:00pm	715	530
West of Reston Pky	9/20-22/2011	72-hour	800	500
West of Baron Cam. Ave.	9/20-22/2011	72-hour	700	500
West of Beulah Rd.	9/20-22/2011	72-hour	800	500
West of Jarrett Valley Dr.	9/20-22/2011	72-hour	800	500

We analyzed the **Existing 2011** traffic counts for the turning movements and vehicle classification. We utilized the TPB 2010 CLRP models with the Cooperative Land Use Forecasts Round 8.0 for the year 2011, year 2020 and year 2040 networks. We also examined the SPS and historical traffic trends. All analyzes indicated a traffic **growth rate of 1.6 percent** per year from 2011 to the **Design year 2040**. Figures 1A through 1D present; Existing 2011 AM and PM peak hour turning movements and ADT. The traffic growth rate was applied, using compounded method, to the Existing traffic volumes and forecasted the **Interim year 2020** and the **Design year 2040** which are shown in the Figures 2A & 2B. The traffic changes, since 2000, are depicted in Appendix A1. The increasing Route 7 westbound AM peak hour traffic may indicate the development of a “Reverse Commute”. The results of the ENTRADA runs are presented in Appendix A2.

Table 1 - Existing & Future Truck Data			
Period	Class 4-5	Class 6-7	Class 8+
Daily	1.5%	1.0%	1.0%
AM PH	1.5%	0.5%	0.5%
PM PH	1.0%	0.5%	0.5%

For the bicycle and pedestrian accommodation, this project is on the Fairfax Countywide Trails Plan. The plan calls for a major trail (VDOT term: shared use path) on both sides of this road for the length of this project. For further details in the adjacent Tyson’s area, contact the County Staff.

If additional information is required, please advise. Thank you.

Attachments.

Cc: Kanathur “Kanti” Srikanth

DEPARTMENT OF TRANSPORTATION
LOCATION AND DESIGN
REQUEST FOR TRAFFIC DATA

TO – District Planning Manager,
State Transportation Planner

Date: 7/21/11
Route: 7 UPC: 52328
City/County: Fairfax
Project: Route 7 Widening
From: Reston Ave
To: Dulles Toll/Access Road
Other: _____
(i.e. intersection improvements, etc.)

FROM - Mark Gibney
Lead Design Engineer
SUBJECT: TRAFFIC DATA FOR:
SCOPING REPORT _____
DESIGN PURPOSES X

Date Data is needed: 11/15/11
**(Please allow 60 days from date of
submission for receipt of data)**

Insure project is open to charges and
provide charge code here: _____ UPC# 52328
Ad
Date 2018 Design Year 2040
Min. Design 60 55
Speed mph Operating Speed mph
(Note: Indicate units, i.e. mph, km/h)

Does this project have Federal Funds as of the time of this form submittal? (Yes or No) Yes
Please furnish the following traffic data on the above captioned project as checked. If the project has
Federal Funds, please also send the data to the Environmental Division (Air & Noise Section). **A
location map, sketch, or other information is attached.**

X * Current (existing) ADT (For information
purposes only and maintenance of traffic)

X * Design Year ADT

X * Design Hourly Volume

 * Directional Distribution Factor (Peak Hour)

X * %Trucks Daily and % Trucks Peak Hour in 3 categories: (Class 4-5) and (Class 6-7) and (Class 8-13) **Include 'Vehicle Classification Counts Summary Sheet' (if available)**

Plan Design Year Level of Service (A sketch of the proposed typical section is required from L&D if checked)

X Existing Peak Hour Traffic A.M. & P. M. Peak Hour Factor

 * Please provide Functional Classification (Project Manager should check that iPM is correct)

Completion date:

 ADT: Five Ten Fifteen Twenty years after completion of
the project.

X * Turning movements at all intersecting routes ~~with a design year count of 3000 V.P.D. or over.~~
(Provide peak hour and twenty-four hour movements for present, opening (2020) and design years)

Do-nothing Design Year ADT (i.e. design year traffic on existing roadway assuming project is not built.)

____ If recommendations for bicycle and pedestrian accommodations for this area are included in any
X * type of transportation plan, please provide the recommendations.

____ * If the area has an approved Long-Range Plan, please provide its recommendation.

If additional information is needed, please contact: _____ Phone: _____

Indicates data needed for scoping. L&D is to request only those items needed on subsequent

* requests.

CC:	Environmental Division (Air & Noise Section)	Residency Administrator
	Project Designer	Regional Traffic Engineer
	District Construction Engineer	Other appropriate individuals
	Project Manager	

NOTE: Plans are available in FALCON and FALCON Web for viewing or printing. Users without viewing or printing capabilities may contact their District Location and Design Representative for prints.

TRAFFIC REQUEST FOR AIR QUALITY

Date:	July 19, 2011	UPC:	52328
To:	Mark Gibney, NOVA L&D	Project #:	0007-029-128, B610, C502, P102, R202
cc:	J. Ponticello, Air Quality M. Fiol, TMPD S.Varner, NOVA Env.	Project Description:	Rte 7 - Widen To 6 Lanes - PE Only
		Route:	7
		District:	Northern Virginia
From:	C. Voigt, Air Quality	County:	Fairfax
Due Date:	To meet NEPA documentation schedule (See Note 1)	Project Limits: (See Note 2)	From: Reston Avenue To: West Approach of Bridge over Dulles Toll Road

☒ **STEP 1: SCREENING**

The level of detail required for the air quality analysis is determined in this step based on the design year annual average daily traffic (AADT) and truck percentage for the project, which are compared to the thresholds listed below by pollutant. Detailed traffic forecasts will be required (see Step 2) if any of the screening thresholds listed below are exceeded.

Forecasts Needed: Capacity-constrained design year ADT and corresponding truck percentages for the build scenario for all alternatives selected for analysis.

Facility: Route 7 and all major intersecting roadways within the specified project limits.

Screening Thresholds, by Pollutant:

- ☒ **CO:** A detailed CO analysis is required if the project area includes a signalized intersection or interchange with a skew angle less than 30 degrees or if the capacity-constrained design year AADT for the build scenario for the mainline or any crossroad exceeds (See Note 4):
- 59,000 for projects involving an intersection or interchange with a minimum skew angle of 60 degrees or more (including unskewed intersections and interchanges),
 - 49,000 for intersecting roadways with a minimum skew angle of 45 degrees or more, or
 - 39,000 for intersecting roadways with a minimum skew angle of 30 degrees or more.
- ☒ **PM:** A detailed PM analysis may be required if the capacity-constrained design year AADT for the build scenario for any roadway link exceeds 125,000 with 8% or more (diesel) trucks and buses or the equivalent of 10,000 or more diesel trucks and buses per day.
- ☒ **MSAT:** A detailed MSAT analysis is required if the capacity-constrained design year AADT for the build scenario for any roadway link exceeds 140,000. If this threshold is exceeded, please promptly notify the Air Section as significant additional traffic requirements would apply.

☒ **STEP 2: DETAILED ANALYSES** (Needed if any of the screening thresholds listed in Step 1 are exceeded)

☒ CO Analysis ☐ PM Analysis ☐ MSAT Analysis

At the time of preparation of this traffic request, it is anticipated that a CO analysis will be needed. If the ADT and truck percentage forecasts developed in Step 1 above also exceed the thresholds specified for PM and MSATs, then the additional and more detailed traffic forecasts used in those analyses will also be needed. Contact air quality staff for the detailed traffic forecast requirements in that case.

Facilities:

Mainline: Route 7 (Leesburg Pike)
Interchange: Route 7 (Leesburg Pike) and Route 267 (Dulles Toll Road & Airport Access Road), including the mainlines, all ramps and all ramp/arterial intersections

Major intersections with Route 7:
Reston Parkway
Baron Cameron Avenue (Route 606)/Springvale Road (Route 674)/Hunter Mill Road
Colvin Run Road/Delta Glen Ct
Colvin Run/Carpers Farm Way
Beulah Rd (Route 702)/Forestville Dr
Towlston Road (Route 676)

Lewinsville Road (Route 694)
 Brook Road (intersects with Lewinsville Road just north of Route 7)
 Jarrett Valley Drive

Alternatives:

☒ Build (all alternatives) ☒ No Build (opening and design years)

Years for which traffic data and forecasts are required:

☒ Base Year: TBD ☒ Opening Year: 2018* ☒ Design Year: 2040*
 (Default: Most recent year (Default: ad year plus 3**) (Default: ad year plus 22)
 for which data are available)

* Year recommended by the VDOT Project Manager (Email 7/7/2011)

** Ad year listed on CEDAR: Not listed

FOR EACH FACILITY, ALTERNATIVE, AND YEAR, PLEASE PROVIDE THE FOLLOWING:**Mainline Roadways:**

- ☒ A lane configuration diagram showing all through and turn lanes and ramps.
- ☒ Annual Average Daily Traffic (AADT) for each link (capacity-constrained)
- ☒ Annual Average Truck Traffic (AATT or Percent of AADT) for each link.
- ☒ Directional volumes (vehicles/hour/link)(capacity-constrained)
- ☒ Posted speed and congested speed (mph) for each link.
- ☒ Level of Service (LOS).

Intersections & Interchanges, including ramps (AM & PM Peak Hours Only):

- ☒ A lane configuration diagram for each intersection identifying all through and turn lanes for each link.
- ☒ Directional volumes, including all turning (or ramp) movements (vehicles/hour/link)(capacity-constrained)
- ☒ Annual Average Truck Traffic (AATT or Percent of AADT) for each link.
- ☒ Posted speed and congested speed (mph) for each link.
- ☐ Level of Service (LOS) for each signalized intersection and interchange (*if any*).

Notes:

1. Typically air studies take up to six weeks to complete from the date of receipt of needed traffic forecasts and plans. Please advise the sender of this request by email if the requested schedule cannot be met. When the traffic forecasts are completed, please address the traffic report to the sender of this request with copies by email to those copied on this request.
2. Project limits are as needed for the environmental document. If these change after the submission of this traffic request, please notify the Air Section as the traffic request may need to be modified to accommodate the new limits.
3. If the screening thresholds are not exceeded, then notification by email of the design year AADT values and applicable skew angle(s) is all that is needed in response to this request. A separate memo will not be required.
4. Based on the 2009 *Project-Level Carbon Monoxide Air Quality Studies Agreement* with FHWA. The minimum skew angle is defined in the Agreement as the smallest angle as the smallest angle modeled between intersecting roadways in a reasonable representation of the intersection or interchange selected for air quality analysis following applicable state and federal guidance. Please contact the VDOT Air Section if you have any questions about the ADT thresholds or their application for skewed intersections or interchanges.

* Traffic requests for noise studies should be obtained separately from Noise Section staff.

PART B**ENVIRONMENTAL DIVISION
REQUEST FOR TRAFFIC DATA FOR NOISE ANALYSIS****(TO BE COMPLETED BY C.O. ENVIRONMENTAL DIVISION - NOISE SECTION)**

- ☒ This project is considered Type I for noise and traffic data is needed for noise analysis. This form should be completed.
- ☐ This project is considered Type III, and no noise study is required. This form need not be completed.

Date:	July 7, 2011	UPC:	52328
To:	TMPD District Planner	Project #:	0007-029-128, B610, B611, B612, C502, P102, R202
Cc:	Marsha Fiol	Project Name:	Route 7-Widen to 6 lanes
From:	LJ Muchenje, Noise Abatement Environmental Division	District:	NOVA
Ad Date:	2018	County:	Fairfax
Base Year		Route:	7
Design Year:	2040	From:	Reston Avenue
Due Date:	30 September, 2011	To:	West Approach of Bridge over Dulles Toll Road
Comments:			

Alternatives Required:

- ☒ Existing (Base Year)
- ☐ No Build (Design Year)
- ☒ Build (Design Year-all alternatives)
- (Based on Capacity- constrained model)**

Facilities for which projections are needed:

- ☒ Mainline Roadways:
Route 7 (Leesburg Pike)
- ☒ Interchanges:
Route 7 (Leesburg Pike) and Dulles Access Road (Toll Road)
- ☒ Intersecting roadways **(not turning movements)**: (include all signalized intersections in the project area, and any other crossing streets with ADT>3000)
Reston Avenue
Reston Parkway
Utterback Store Road
Bishopsgate Way
Great Passage Blvd
Markell Ct/Amanda Drive
River Ridge Drive
Baron Cameron Avenue/Springvale Road
Colvin Forest Drive
Colvin Run Road
Trotting Horse Lane

LD-104-B

*Forestville Dr
Towlston Road
Brook Road
Lewinsville Road*

☐ Adjacent Facilities:

For each year, alternative and facility identified above, please provide the following:

- Please provide a lane configuration diagram noting the number of through lanes covering the entire project length.
- Annual Average Daily Traffic (AADT)

For each hour starting at 6 a.m. and extending through 9 p.m. (fifteen hours) (IN TABLE FORMAT):

- Total Volume (vehicles/hour) and Percent AADT
- Truck Volume (total trucks/hour) and Percent AADT
- Percent of trucks with two axles and six tires (2A-6T), class 4-5
- Percent of trucks with three or more axles (3A+), class 6-13
- Provide future truck percentages if different from the Existing (Base Year).
- Directional distribution
- Operating speed (mph) (or uninterrupted speed)
- Posted speed (mph) (*as a cross-reference for the projected operating speed*)

Noise Mitigation:

Please answer the following noise-related questions concerning heavy trucks (3 axles or more):

- 1) To the best of your knowledge about regional traffic patterns, is it practical and reasonable to direct heavy trucks to another facility?
- 2) If yes, what percentage of heavy trucks can be diverted and to what facility? If no, explain.

cc: VDOT Noise Abatement Program Manager
Project Manager
District Environmental Document Writer

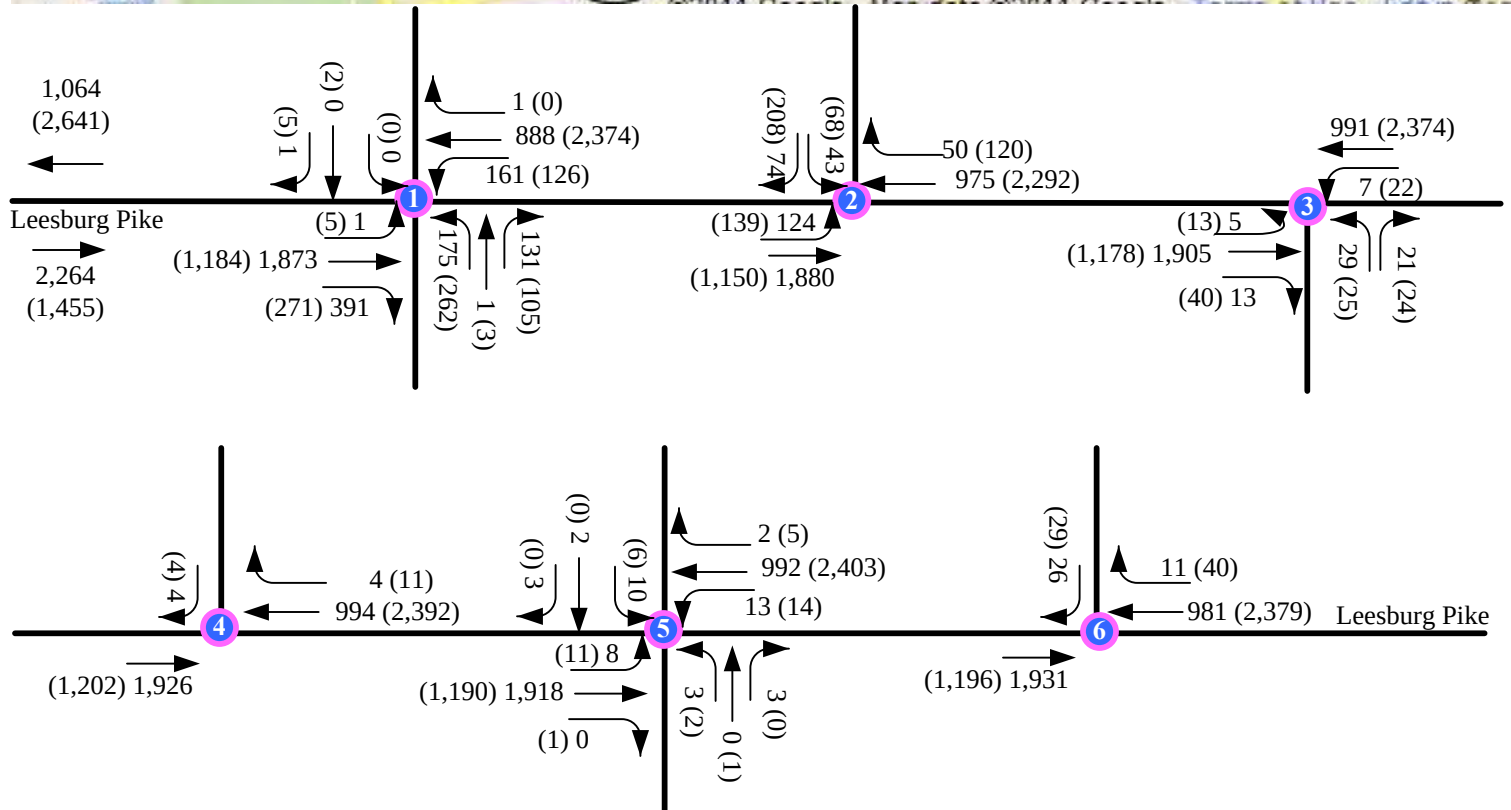
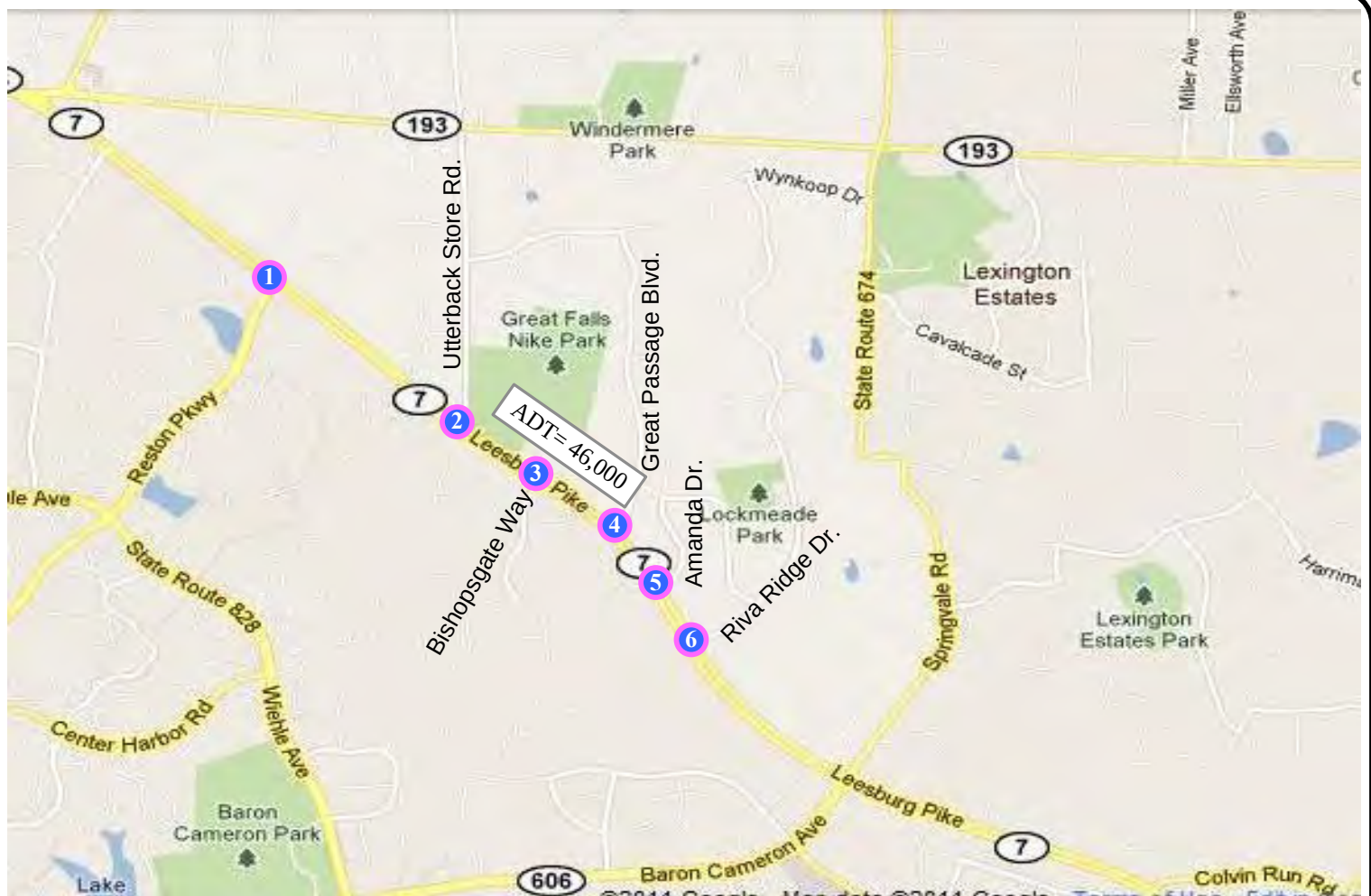


Figure 1A – Existing 2011 Daily, AM & (PM) Peak Hour Turning Traffic Volumes

Route 7 Widening, from Reston Ave. to Dulles Toll Road
Project: 0007-029-128, P102, R202, C502, B610; UPC# 52328/Act. 616



Nov. 23, 2011



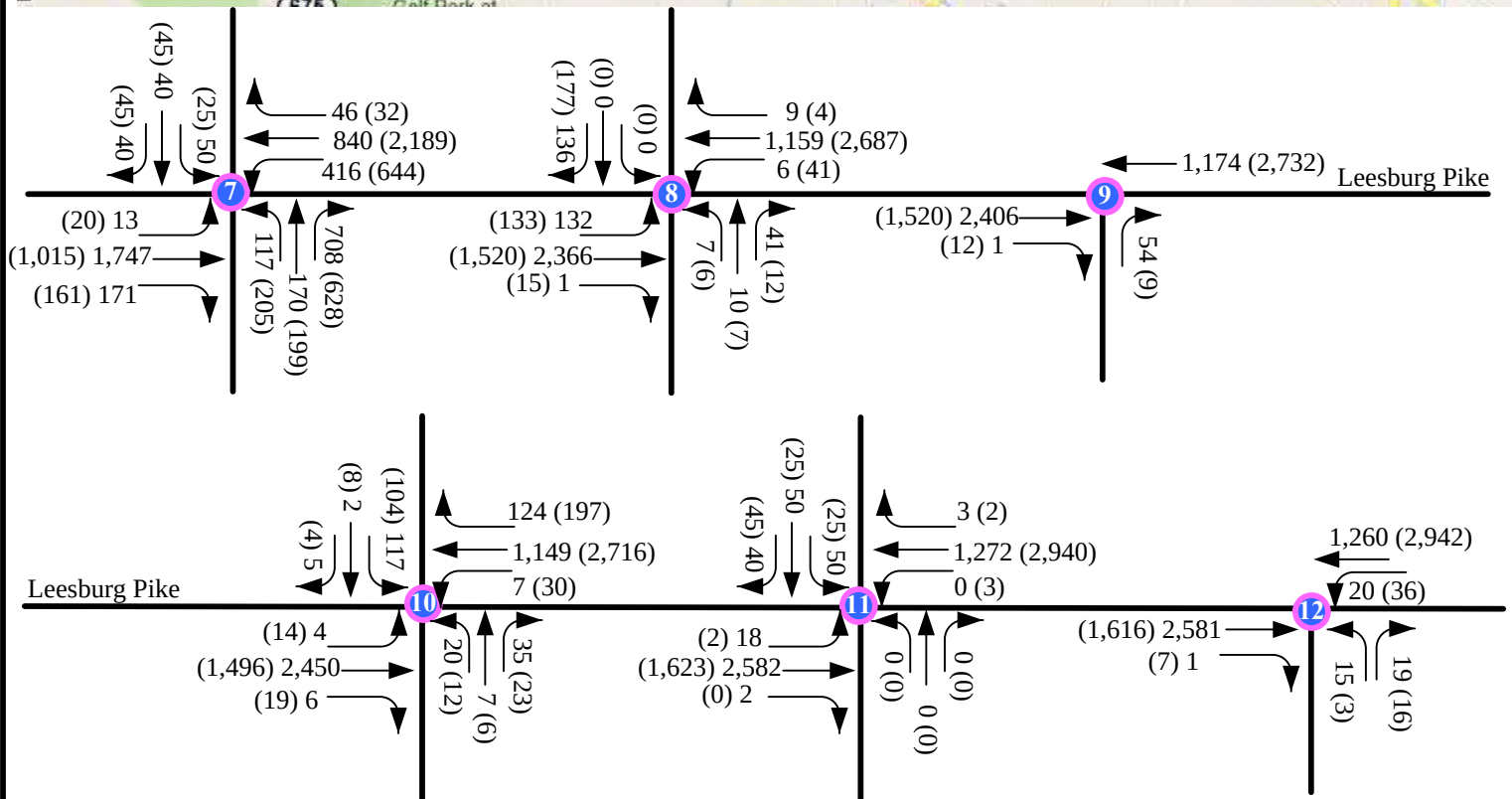
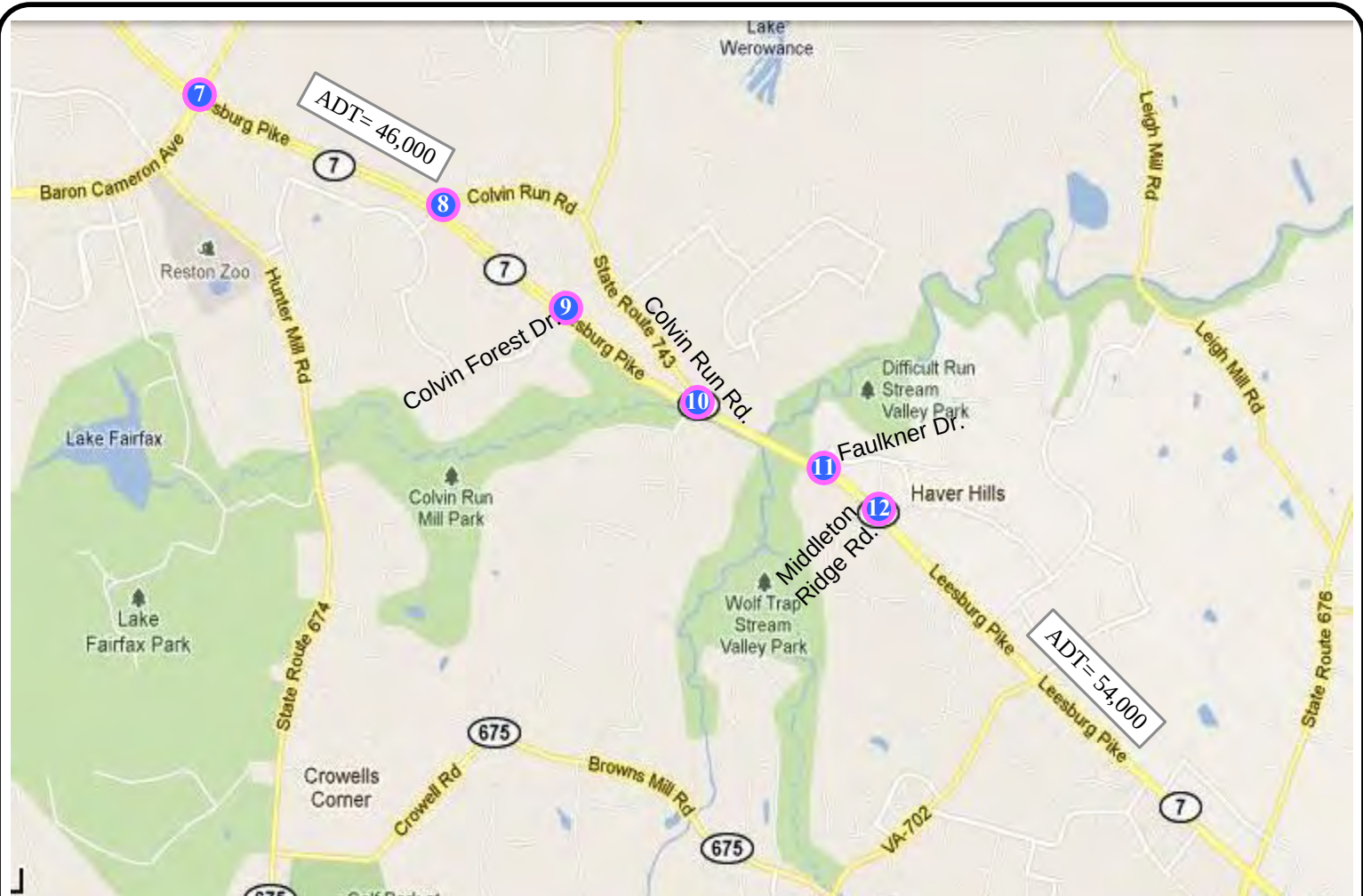


Figure 1B – Existing 2011 Daily, AM & (PM) Peak Hour Turning Traffic Volumes

Route 7 Widening, from Reston Ave. to Dulles Toll Road
Project: 0007-029-128, P102, R202, C502, B610; UPC# 52328/Act. 616



Nov. 23, 2011



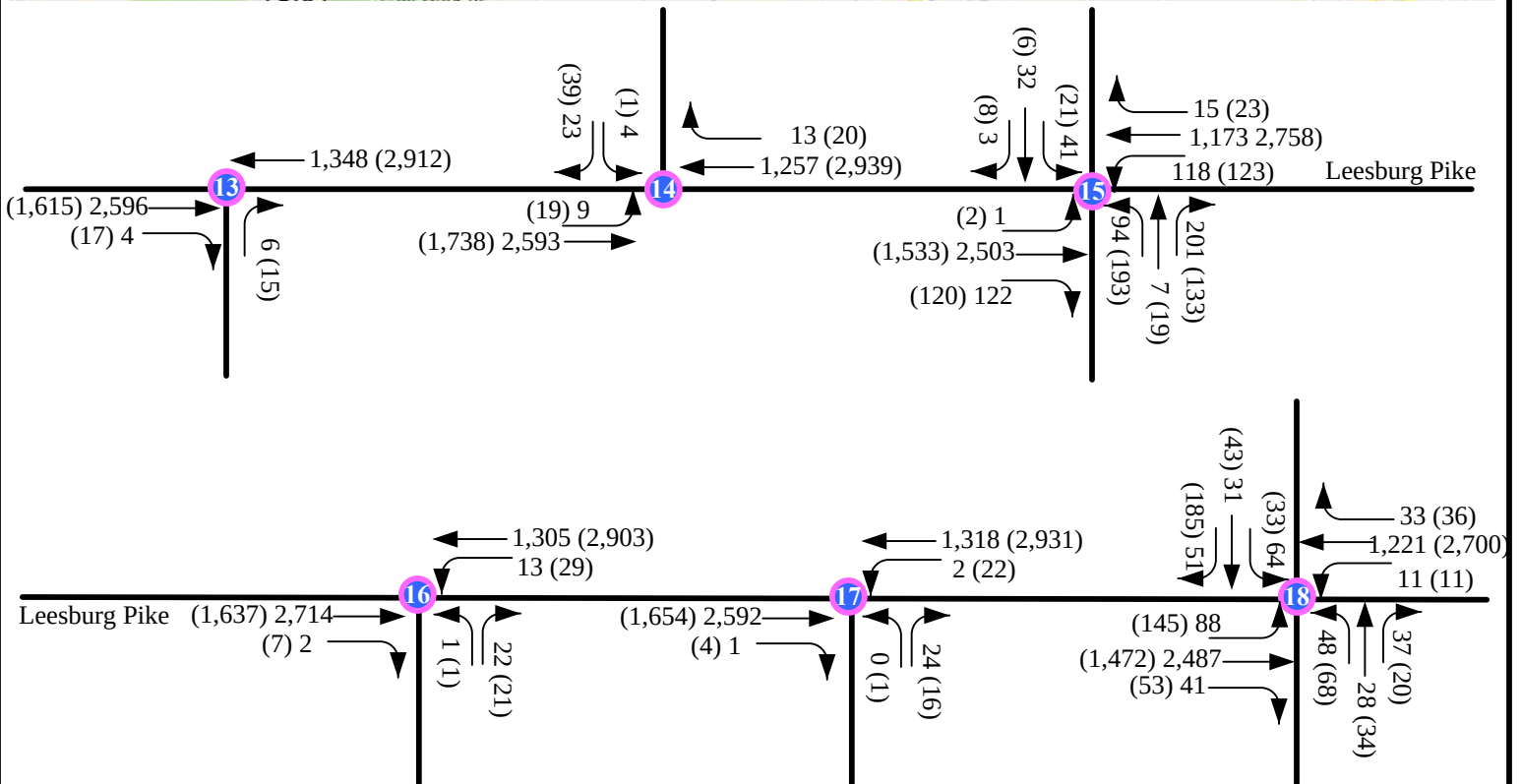
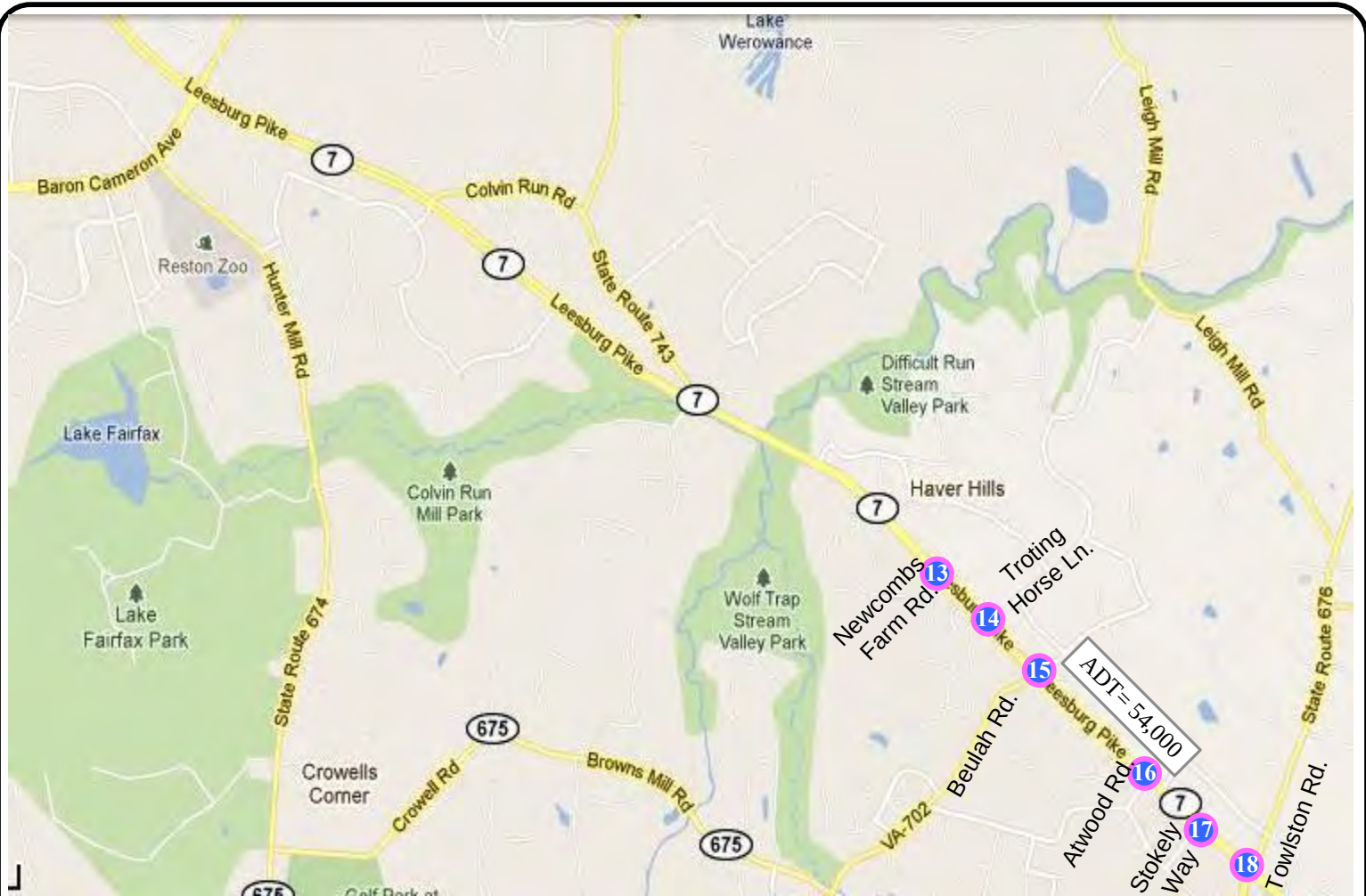


Figure 1C – Existing 2011 Daily, AM & (PM) Peak Hour Turning Traffic Volumes

Route 7 Widening, from Reston Ave. to Dulles Toll Road
Project: 0007-029-128, P102, R202, C502, B610; UPC# 52328/Act. 616



Nov. 23, 2011



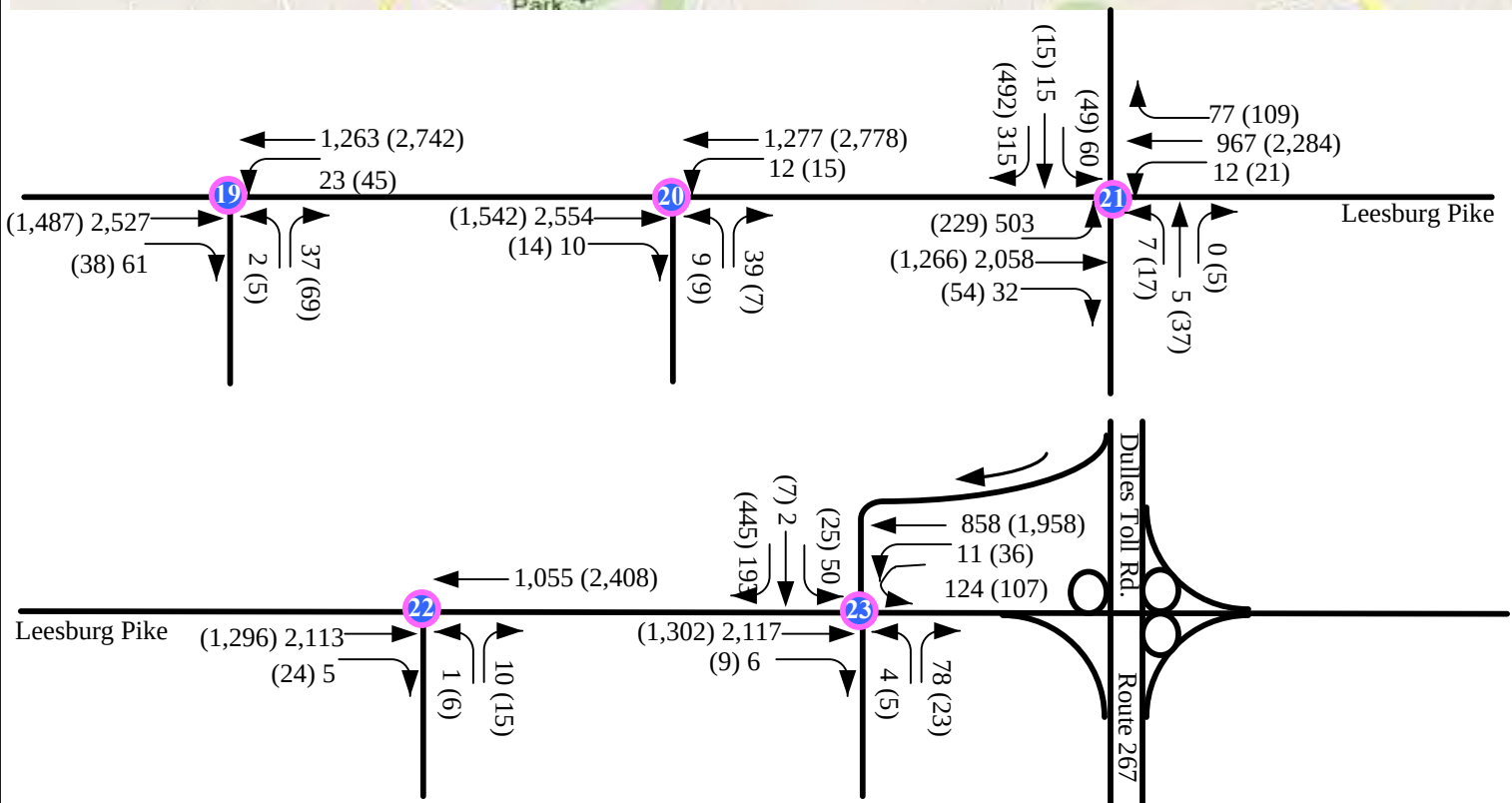
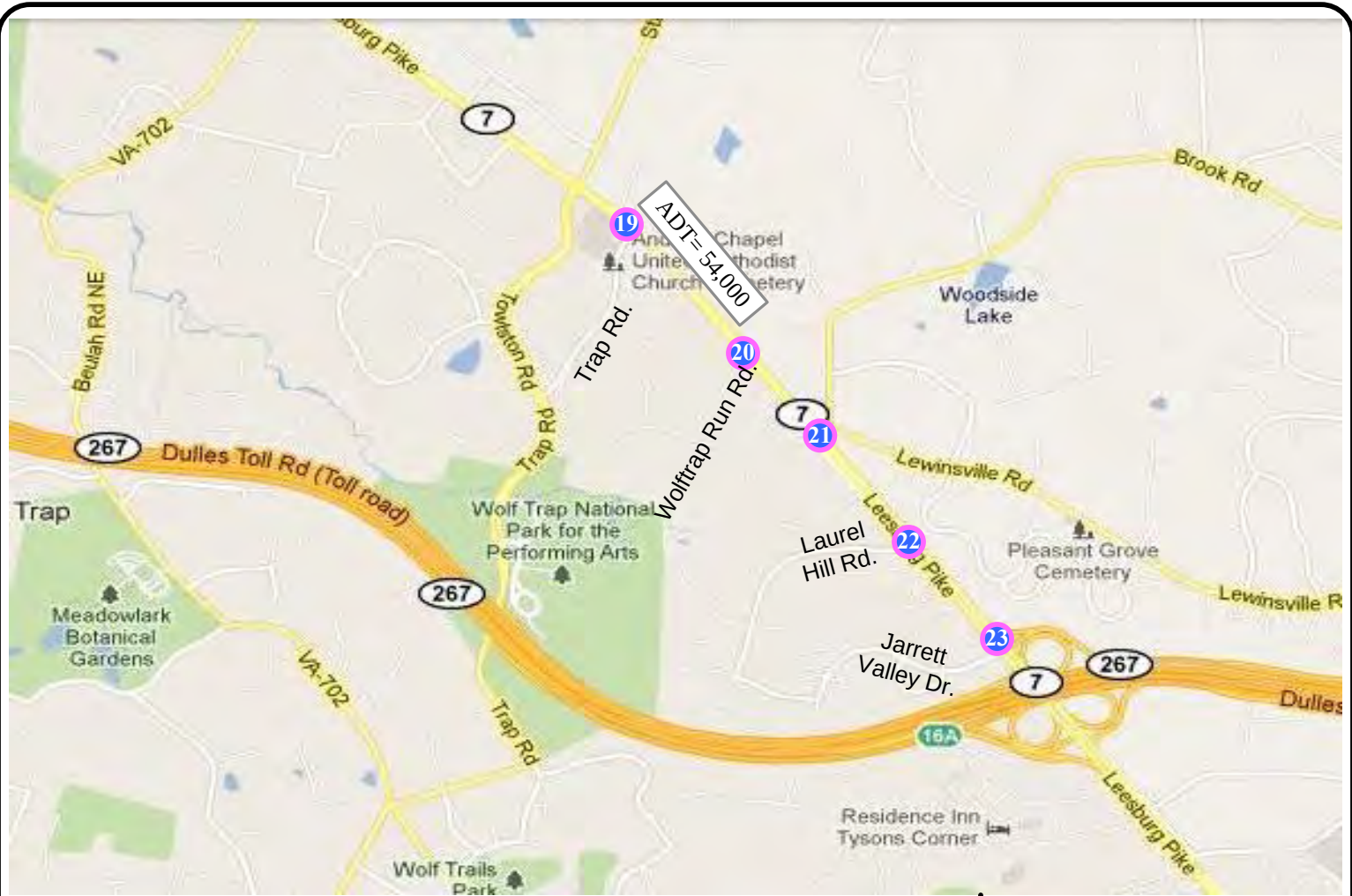


Figure 1D – Existing 2011 Daily, AM & (PM) Peak Hour Turning Traffic Volumes

Route 7 Widening, from Reston Ave. to Dulles Toll Road
Project: 0007-029-128, P102, R202, C502, B610; UPC# 52328/Act. 616



Nov. 23, 2011



NOVA-TP<EA>

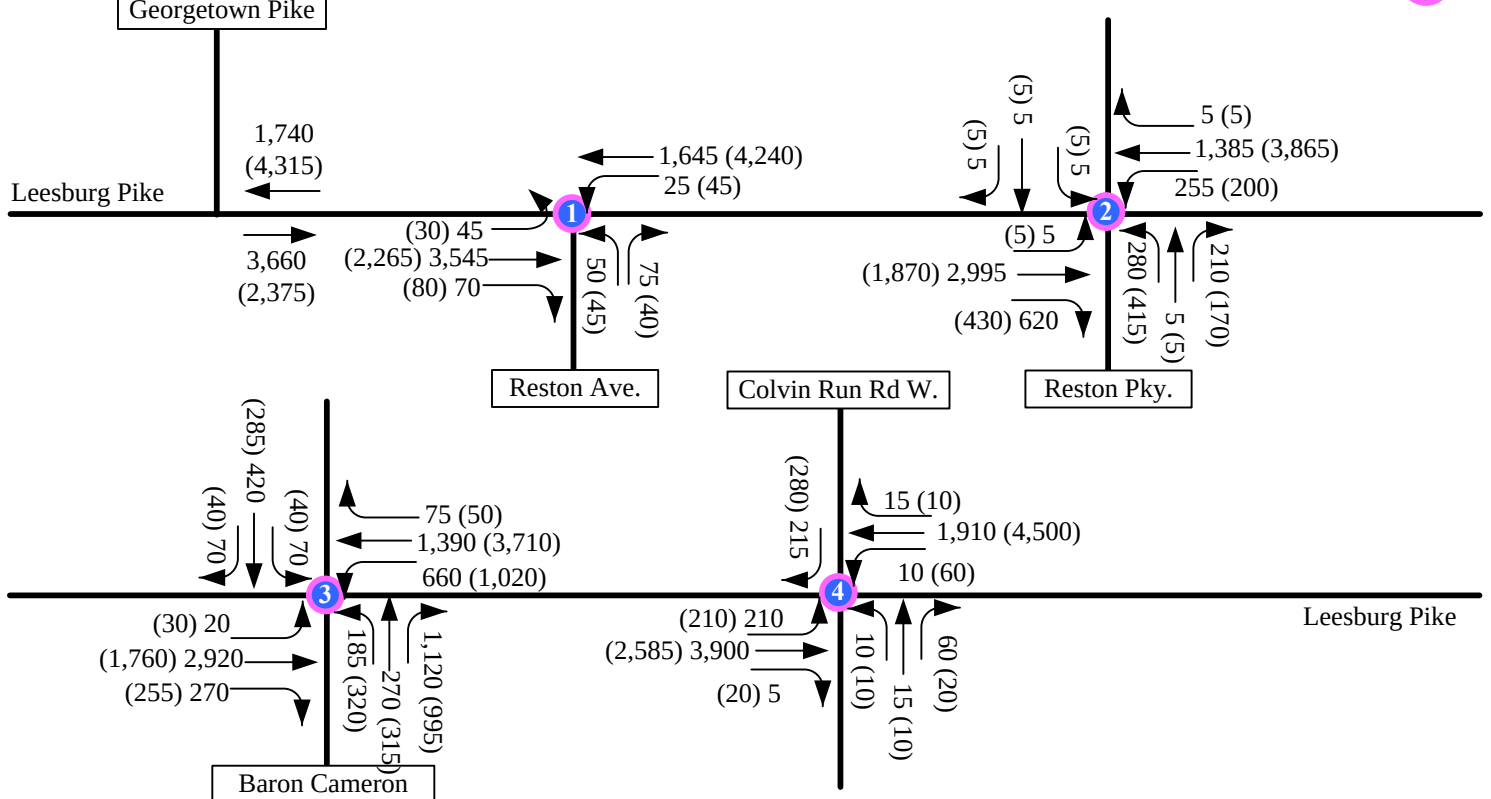
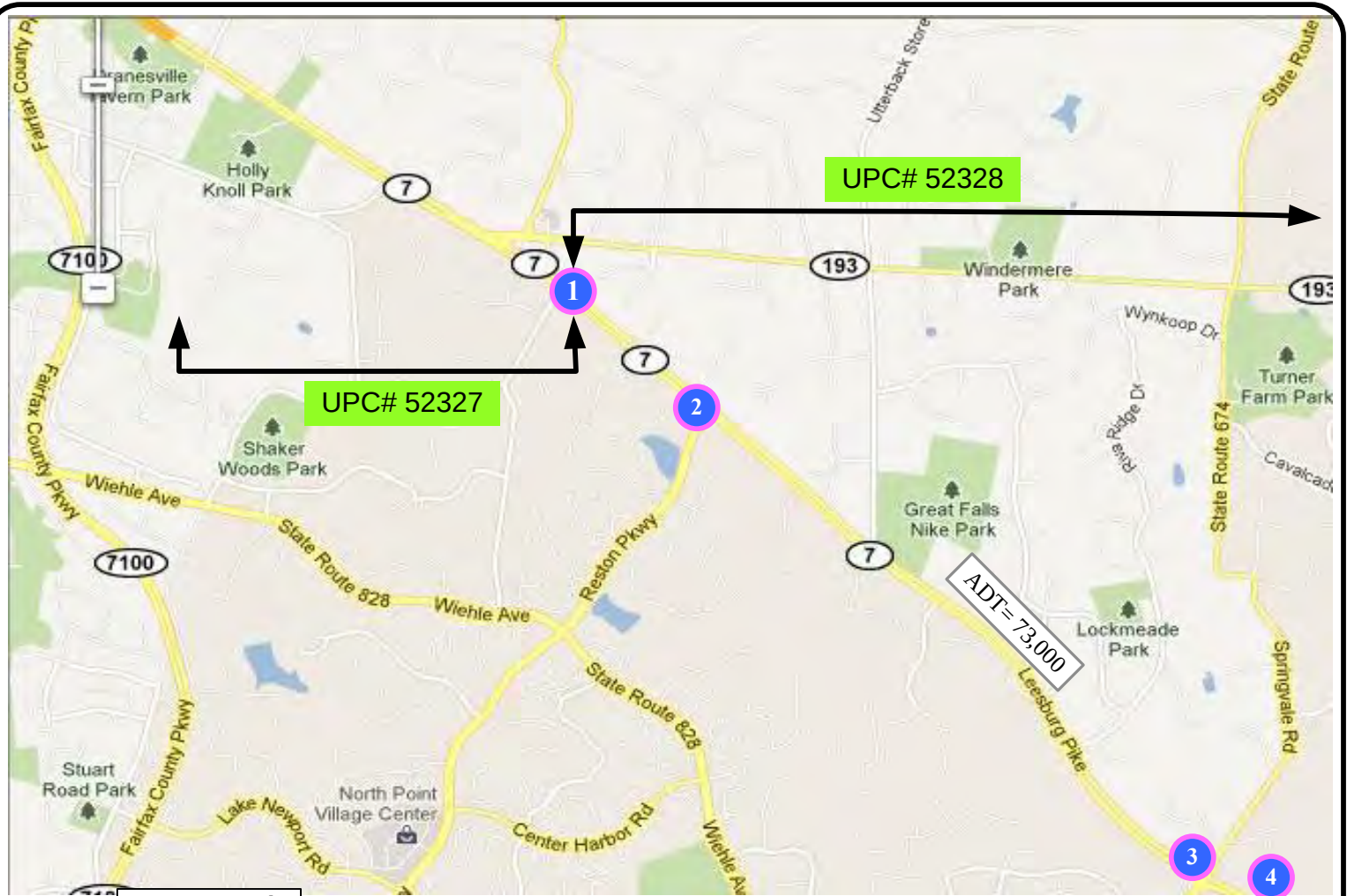


Figure 2A – Forecasted Design Year 2040 Daily, AM & (PM) Peak Hour Traffic Volumes

Route 7 Widening, from Reston Ave. to Dulles Toll Road
Project: 0007-029-128, P102, R202, C502, B610; UPC# 52328/Act. 616



Nov. 23, 2011



NOVA-TP<EA>

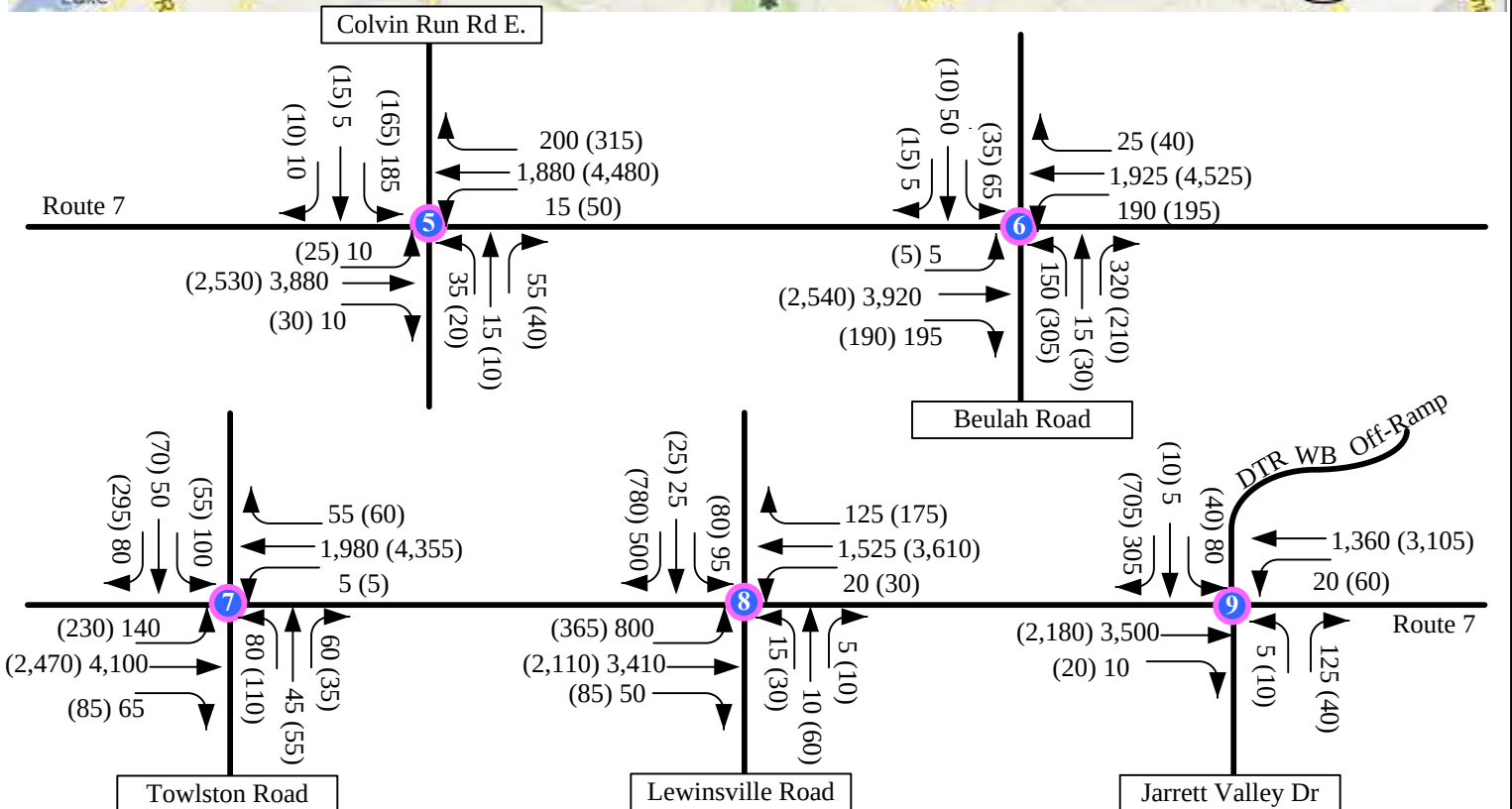
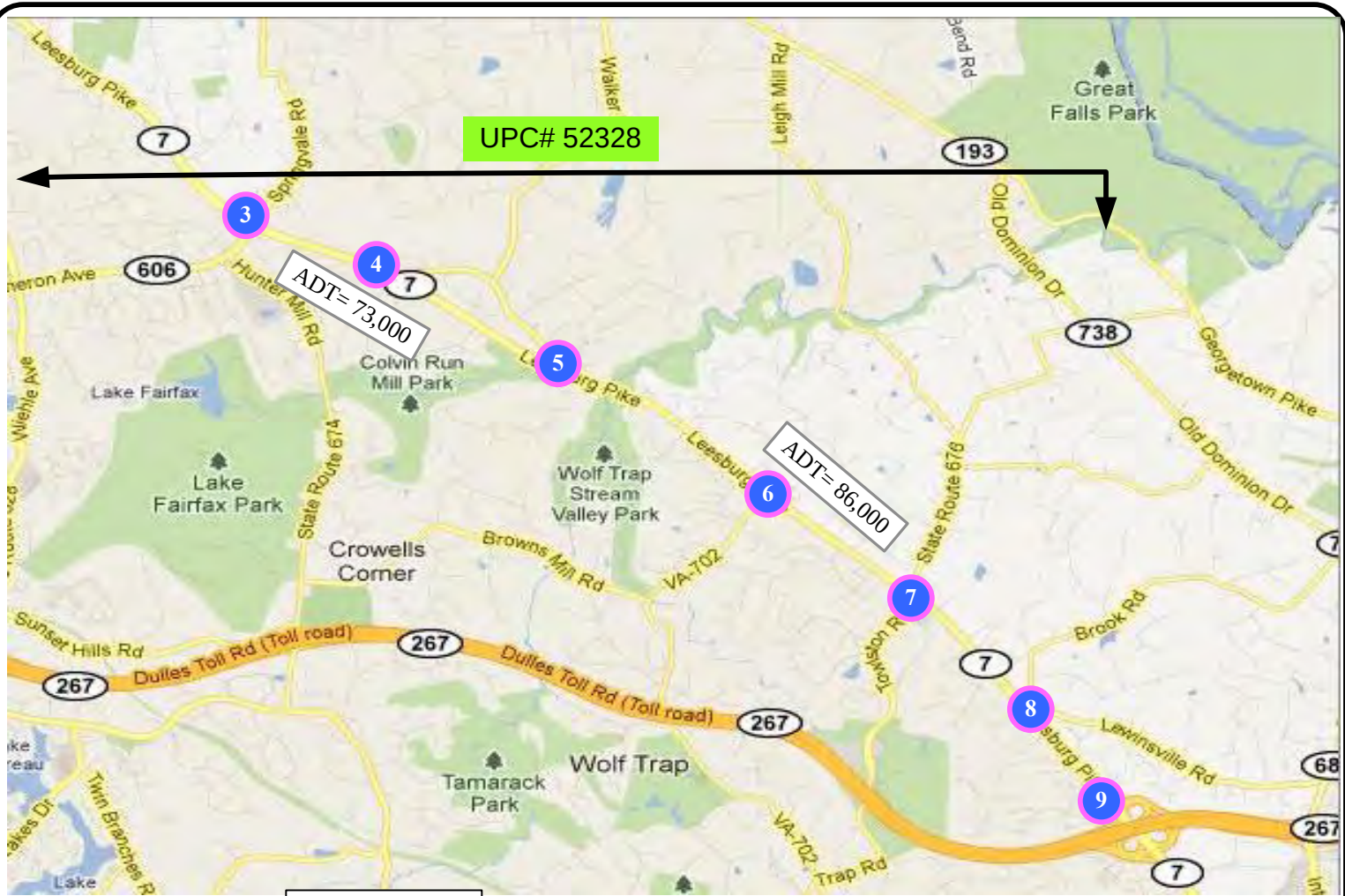


Figure 2B – Forecasted Design Year 2040 Daily, AM & (PM) Peak Hour Traffic Volumes

Route 7 Widening, from Reston Ave. to Dulles Toll Road
Project: 0007-029-128, P102, R202, C502, B610; UPC# 52328/Act. 616



Nov. 23, 2011



Route 7, Leesburg Pike Widening from Reston Ave. to DTR

Project #: 0007-029-128, B610, C502, P102, R202

UPC# 52328/Act. 616

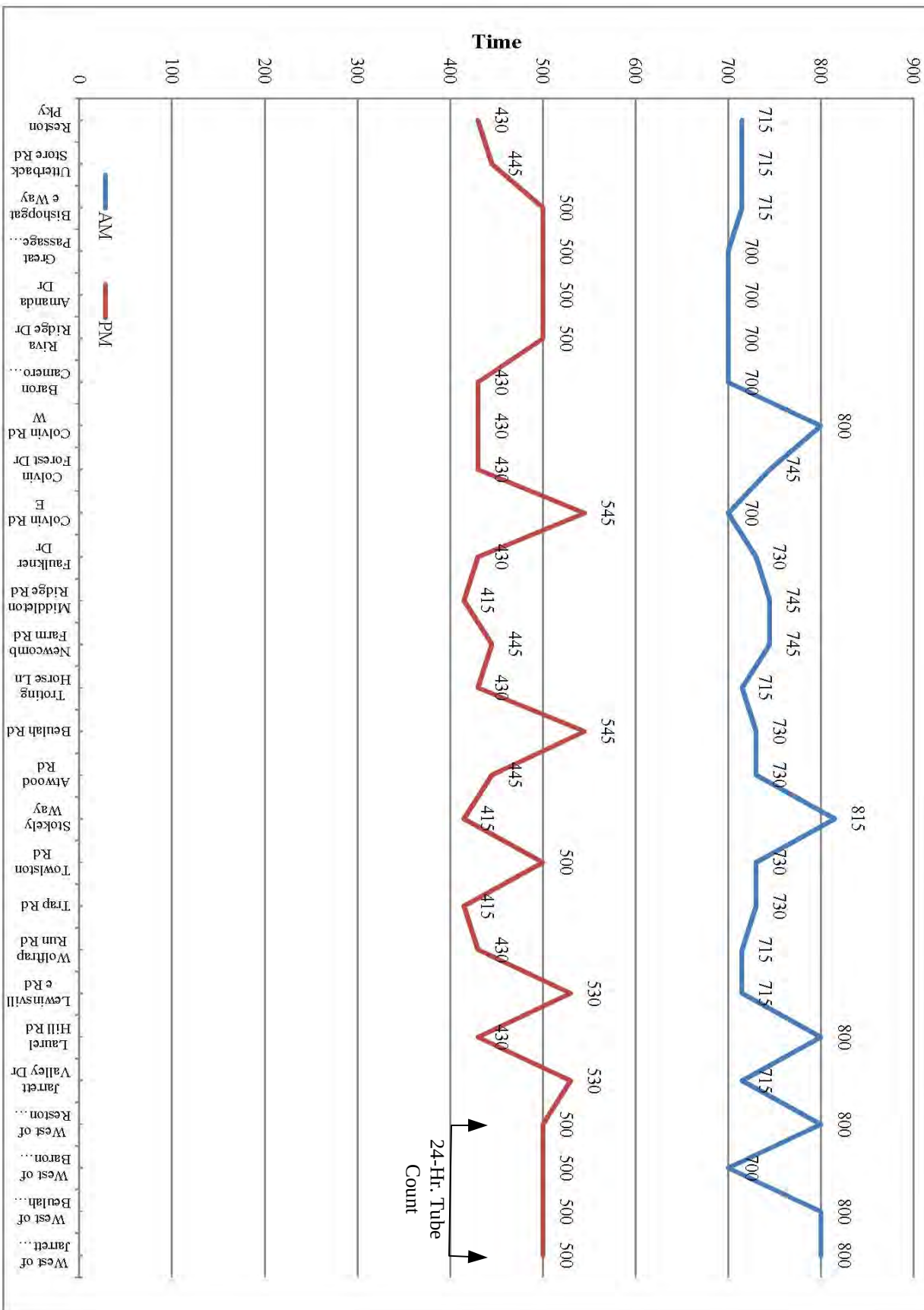
APPENDIX A1

Route 7 Corridor Traffic Changes from 2000 to 2011

November 23, 2011

Route 7 Widening Project (52328) Existing 2011 Intersection Peak Hour Starting Time

Intersection



24-Hr. Tube
Count

Figure 1E – Existing 2011 Daily, AM & PM Peak Hour Starting Time

Route 7 Widening, from Reston Ave. to Dulles Toll Road
Project: 0007-029-128, P102, R202, C502, B610; UPC# 52328/Act. 616



Nov. 23, 2011



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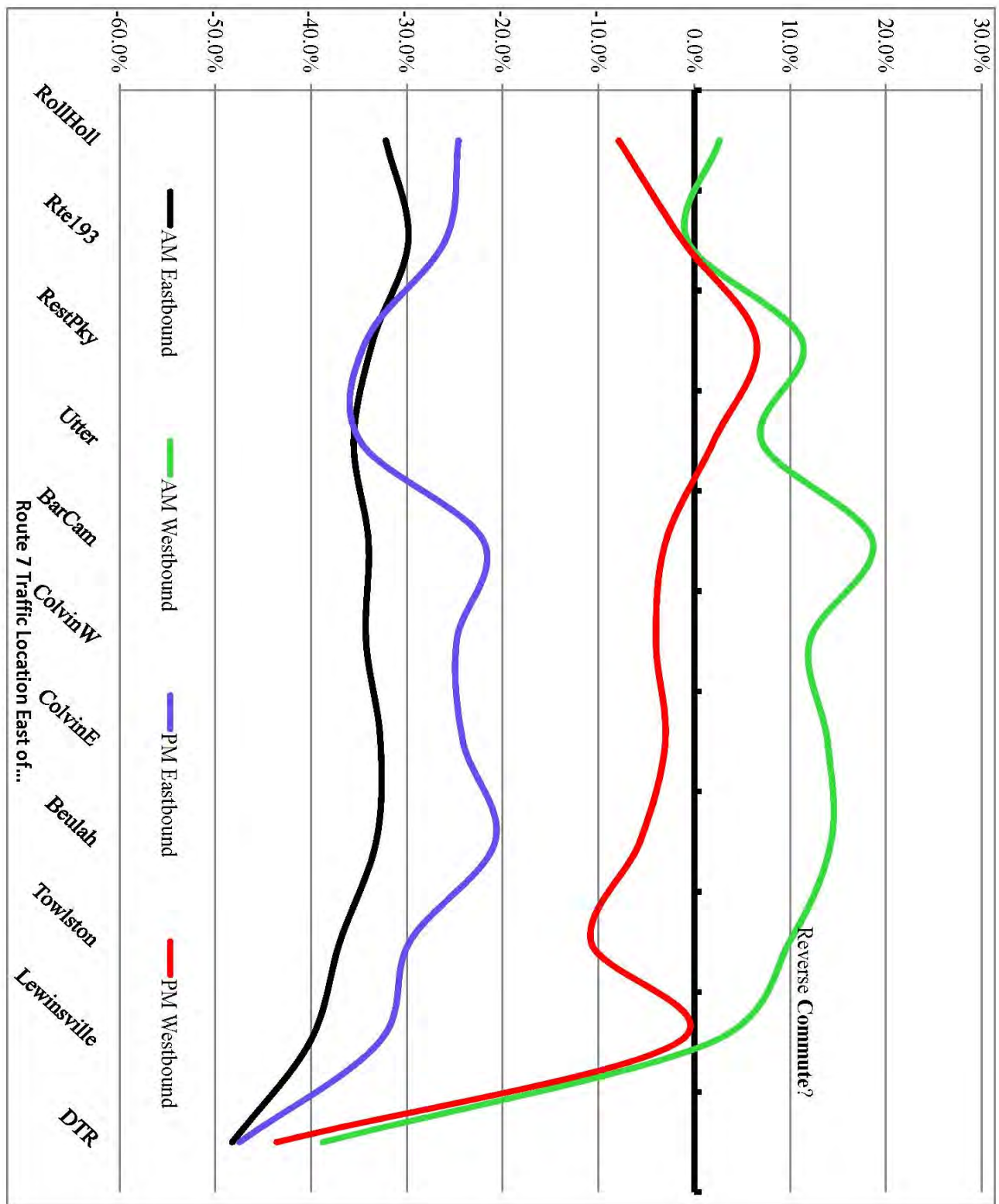


Figure 1F – AM & PM Peak Hour Traffic Volume Changes from Year 2000 to the Existing 2011

Route 7 Widening, from Reston Ave. to Dulles Toll Road
 Project: 0007-029-128, P102, R202, C502, B610; UPC# 52328/Act. 616

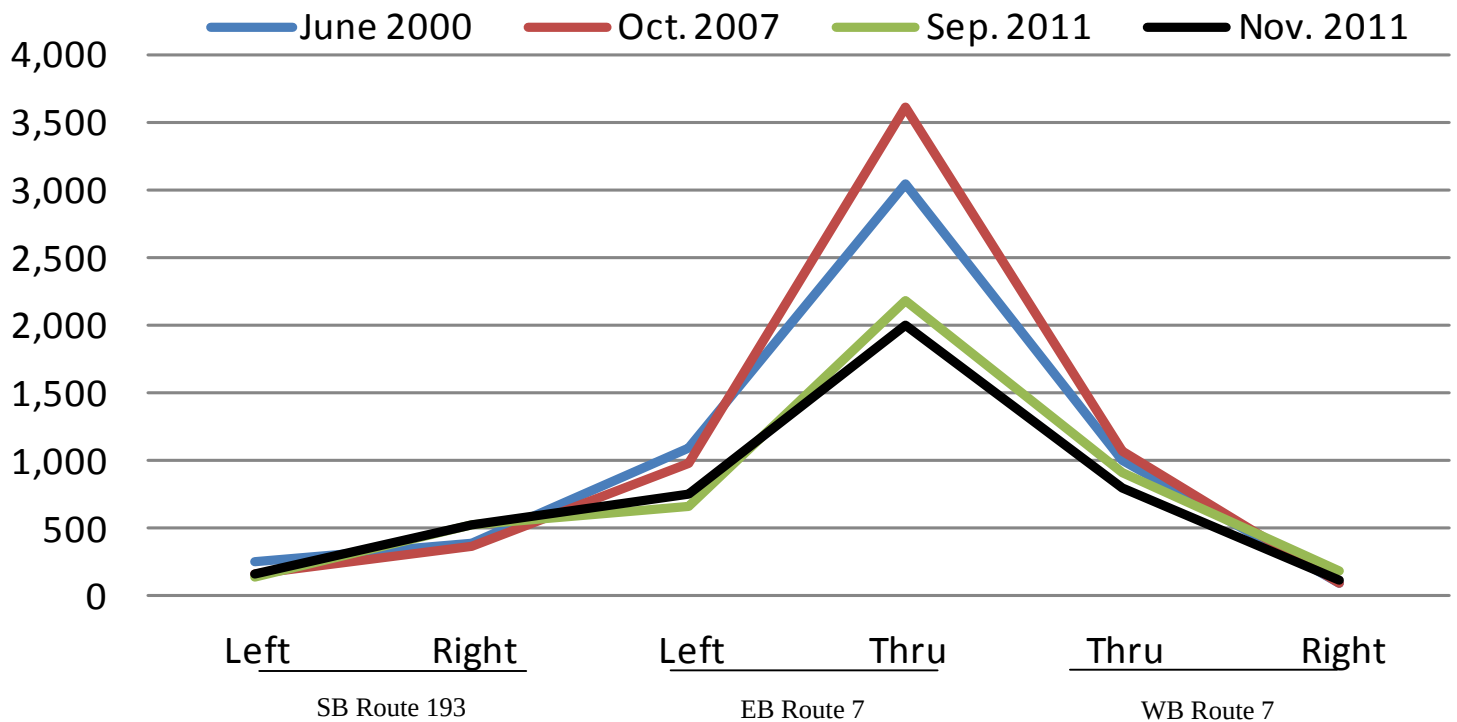


Nov. 23, 2011



NOVA-TP<EA>

AM PH Volume Comparison



PM PH Volume Comparison

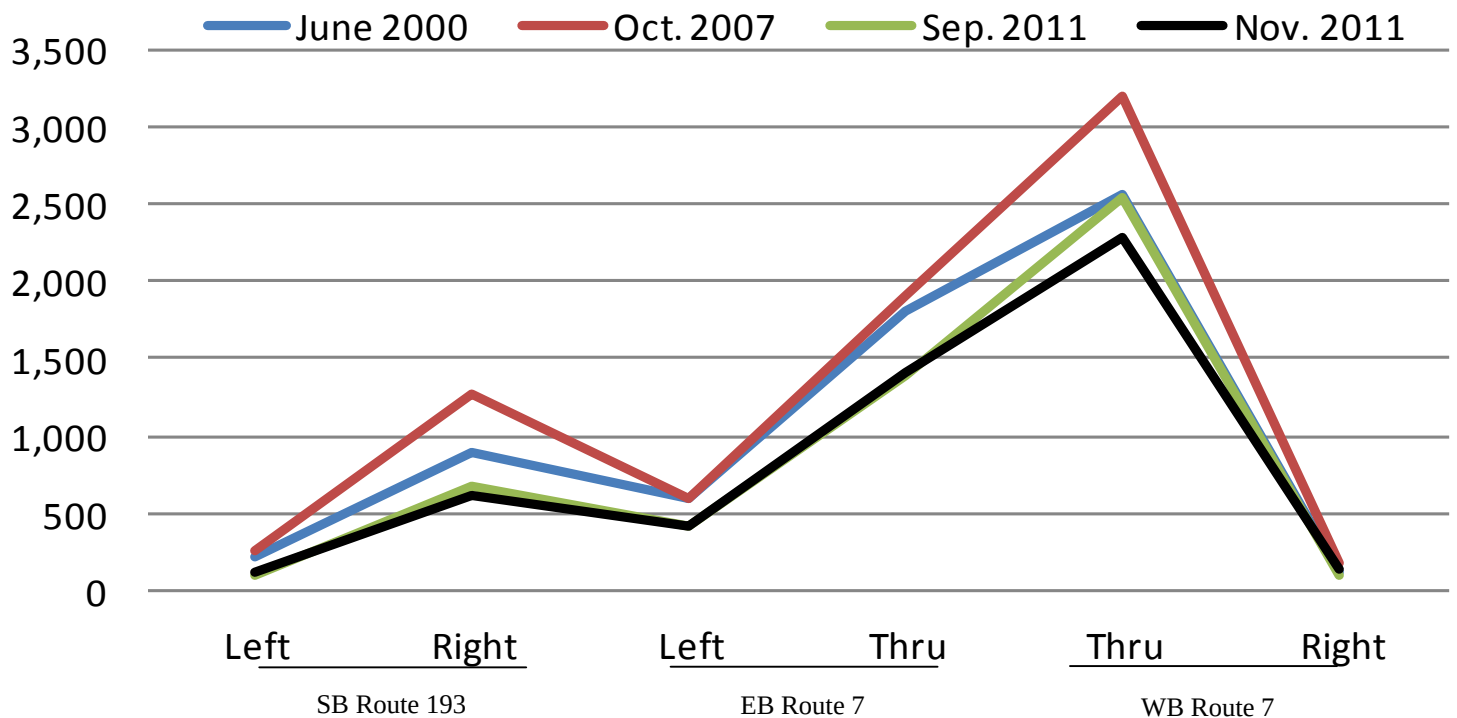


Figure 1G – Route 7 at Georgetown Pike AM & PM Peak Hour Traffic Volume Changes Since 2000

Route 7 Widening, from Reston Ave. to Dulles Toll Road
Project: 0007-029-128, P102, R202, C502, B610; UPC# 52328/Act. 616



Nov. 23, 2011



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Route 7, Leesburg Pike Widening from Reston Ave. to DTR

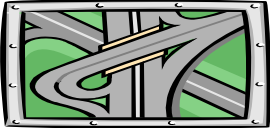
Project #: 0007-029-128, B610, C502, P102, R202

UPC# 52328/Act. 616

APPENDIX A2

ENTRADA Output

November 23, 2011

		ENTRADA© - Environmental Traffic Data Input Summary								
		Table 1 - Route 7 Widening								
		0007-029-128, P102, R202, C502, B610; UPC# 52328/616								
Facility	Leesburg Pike			Direction		E/W	Present Year		2011	# of hours
From	Reston Ave.			Map Reference		Map provided	Interim Year		2020	15
To	Difficult Run			County	Fairfax		Design Year		2040	Version 11.09
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)									
	EB			WB			Weighted TWO-WAY			Weighted %T= [(EB Vol.*%T) + (WB Vol.*%T)] / 2-way Vol. T: Truck
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	1.0%	0.8%	1.7%	
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	1.0%	0.7%	1.7%	
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	1.0%	0.7%	1.6%	
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	1.3%	1.0%	2.3%	
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.6%	1.4%	3.0%	
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.6%	1.6%	3.2%	
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.5%	3.2%	
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.5%	1.3%	2.8%	
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.2%	2.9%	
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.4%	0.8%	2.2%	
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	1.0%	0.5%	1.5%	
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.4%	0.4%	0.9%	
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.5%	0.4%	0.9%	
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.4%	0.3%	0.7%	
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.4%	0.3%	0.7%	
21:00										
22:00										
23:00										
Starting Time	Directional Split, D-factor									
	EB					WB				
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	83%	83%	83%	83%	83%	17%	17%	17%	17%	17%
7:00	75%	75%	75%	75%	75%	25%	25%	25%	25%	25%
8:00	65%	65%	65%	65%	65%	35%	35%	35%	35%	35%
9:00	62%	62%	62%	62%	62%	38%	38%	38%	38%	38%
10:00	57%	57%	57%	57%	57%	43%	43%	43%	43%	43%
11:00	53%	53%	53%	53%	53%	47%	47%	47%	47%	47%
12:00	52%	52%	52%	52%	52%	48%	48%	48%	48%	48%
13:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%
14:00	46%	46%	46%	46%	46%	54%	54%	54%	54%	54%
15:00	43%	43%	43%	43%	43%	57%	57%	57%	57%	57%
16:00	39%	39%	39%	39%	39%	61%	61%	61%	61%	61%
17:00	38%	38%	38%	38%	38%	62%	62%	62%	62%	62%
18:00	41%	41%	41%	41%	41%	59%	59%	59%	59%	59%
19:00	39%	39%	39%	39%	39%	61%	61%	61%	61%	61%
20:00	39%	39%	39%	39%	39%	61%	61%	61%	61%	61%
21:00										
22:00										
23:00										



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ENTRADA® - Environmental Traffic Data Output Sheet

Table 1 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Leesburg Pike					Map Reference		Map provided		
From	Reston Ave.					Unit Sys= US , BPR Eq with a= 1.0001 and b= 4				
To	Difficult Run					Present Year 2011 ADT		46,000	No-build	
City/County	Fairfax					Interim Year 2020 ADT		53,000	53,000	
Date	11/16/2011	Time Span	15 Hours			Design Year 2040 ADT		73,000	66,000	
Eastbound										
Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.			
								2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	2,346	2,703	2,703	3,724	3,366 *	6.16%	83%	0.7%	0.7%	1.4%
7:00	2,241	2,582	2,582	3,556	3,215 *	6.52%	75%	0.6%	0.7%	1.3%
8:00	1,734	1,998	1,998	2,752	2,488	5.82%	65%	0.3%	0.5%	0.8%
9:00	1,570	1,809	1,809	2,491	2,252	5.50%	62%	0.6%	0.8%	1.4%
10:00	1,269	1,462	1,462	2,014	1,821	4.81%	57%	1.0%	1.5%	2.5%
11:00	1,160	1,336	1,336	1,840	1,664	4.76%	53%	1.3%	1.5%	2.8%
12:00	1,225	1,411	1,411	1,944	1,758	5.12%	52%	1.7%	1.7%	3.4%
13:00	1,136	1,309	1,309	1,803	1,630	5.02%	49%	1.6%	1.6%	3.2%
14:00	1,178	1,357	1,357	1,869	1,690	5.53%	46%	1.6%	1.6%	3.2%
15:00	1,264	1,456	1,456	2,005	1,813	6.34%	43%	1.8%	1.1%	2.9%
16:00	1,257	1,448	1,448	1,995	1,804	6.94%	39%	1.4%	0.7%	2.1%
17:00	1,383	1,594	1,594	2,195	1,985	7.93%	38%	0.5%	0.7%	1.3%
18:00	1,272	1,465	1,465	2,018	1,825	6.67%	41%	0.6%	0.6%	1.2%
19:00	993	1,144	1,144	1,576	1,425	5.60%	39%	0.6%	0.6%	1.1%
20:00	749	863	863	1,189	1,075	4.21%	39%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										
Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	16	15	30	27	11	10	14	13	5	5
7:00	19	17	32	29	13	11	16	15	6	6
8:00	32	29	43	39	25	23	30	27	15	13
9:00	36	33	45	41	29	27	34	31	18	17
10:00	43	39	49	44	38	34	41	37	28	25
11:00	45	41	49	45	41	37	44	40	32	29
12:00	43	39	49	44	38	35	42	38	28	25
13:00	45	41	50	45	41	37	44	40	32	29
14:00	45	40	49	45	40	36	43	39	30	28
15:00	43	39	48	44	38	34	41	37	27	25
16:00	44	40	49	44	39	35	42	38	29	26
17:00	41	37	48	43	36	32	39	36	25	23
18:00	44	40	49	44	39	36	42	38	29	27
19:00	49	44	51	46	47	42	48	43	41	37
20:00	51	46	52	47	50	45	51	46	48	43
21:00										
22:00										
23:00										
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT		

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT



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ENTRADA® - Environmental Traffic Data Output Sheet

Table 1 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Leesburg Pike					Map Reference		Map provided		
From	Reston Ave.					Unit Sys= US , BPR Eq with a= 1.0001 and b= 4				
To	Difficult Run					Present Year 2011 ADT		46,000	No-build	
City/County	Fairfax					Interim Year 2020 ADT		53,000	53,000	
Date	11/16/2011	Time Span	15 Hours			Design Year 2040 ADT		73,000	66,000	
Westbound										
Starting Time	Hourly Volume					Existing		Present % Truck		
	Existing	Interim Bld	Interim Nbld	Design Bld	Design Nbld	% ADT	Dir. Dist.	2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	487	561	561	772	698	6.16%	17%	2.4%	1.0%	3.4%
7:00	758	873	873	1,203	1,088	6.52%	25%	2.2%	0.9%	3.1%
8:00	944	1,088	1,088	1,499	1,355	5.82%	35%	2.1%	1.0%	3.1%
9:00	959	1,105	1,105	1,522	1,376	5.50%	38%	2.4%	1.4%	3.8%
10:00	944	1,087	1,087	1,498	1,354	4.81%	43%	2.4%	1.3%	3.6%
11:00	1,031	1,188	1,188	1,636	1,479	4.76%	47%	1.8%	1.8%	3.6%
12:00	1,130	1,302	1,302	1,793	1,621	5.12%	48%	1.7%	1.3%	3.0%
13:00	1,172	1,350	1,350	1,859	1,681	5.02%	51%	1.4%	1.0%	2.4%
14:00	1,364	1,572	1,572	2,165	1,958	5.53%	54%	1.7%	0.9%	2.6%
15:00	1,652	1,903	1,903	2,622	2,370	6.34%	57%	1.1%	0.5%	1.6%
16:00	1,935	2,230	2,230	3,071	2,777	6.94%	61%	0.7%	0.4%	1.0%
17:00	2,265	2,610	2,610	3,595	3,250 *	7.93%	62%	0.4%	0.2%	0.6%
18:00	1,795	2,069	2,069	2,849	2,576	6.67%	59%	0.4%	0.3%	0.7%
19:00	1,584	1,825	1,825	2,514	2,273	5.60%	61%	0.3%	0.2%	0.5%
20:00	1,189	1,370	1,370	1,886	1,705	4.21%	61%	0.4%	0.2%	0.6%
21:00										
22:00										
23:00										
Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nbld		Design Bld		Design Nbld	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	52	47	52	47	52	47	52	47	51	46
7:00	51	46	52	47	50	45	50	45	46	42
8:00	49	44	51	46	46	42	48	43	40	36
9:00	48	44	51	46	46	41	47	43	39	35
10:00	49	44	51	46	46	42	48	43	40	36
11:00	47	43	50	45	44	40	46	42	36	33
12:00	46	41	50	45	42	38	44	40	33	30
13:00	45	41	49	45	41	37	44	40	32	29
14:00	41	37	47	43	35	31	38	35	24	21
15:00	34	31	44	40	27	24	31	28	16	14
16:00	27	24	39	35	19	18	24	21	10	9
17:00	19	17	33	29	13	12	17	15	6	6
18:00	31	28	42	38	24	21	28	25	13	12
19:00	37	34	46	41	30	28	35	31	19	17
20:00	46	42	50	45	42	38	45	41	34	30
21:00										
22:00										
23:00										
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT		

* Shown when volume exceeds Max. Service Flow

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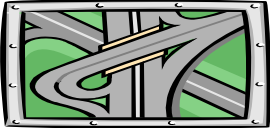
Table 1 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Leesburg Pike							Map Reference		Map provided					
From	Reston Ave.							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4							
To	Difficult Run							Present Year 2011 ADT		46,000	No-build				
City/County	Fairfax							Interim Year 2020 ADT		53,000	53,000				
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		73,000	66,000				
Two-way															
Starting Time	Hourly Volume					Existing		Present % Truck							
	Existing	Interim Bld	Interim Nbld	Design Bld	Design Nbld	% ADT	Dir. Dist.								
								2A-6T	3A+	Total					
0:00															
1:00															
2:00															
3:00															
4:00															
5:00															
6:00	2,833	3,264	3,264	4,496	4,065	6.16%	=	1.0%	0.8%	1.7%					
7:00	2,999	3,455	3,455	4,759	4,302	6.52%	=	1.0%	0.7%	1.7%					
8:00	2,679	3,086	3,086	4,251	3,843	5.82%	=	1.0%	0.7%	1.6%					
9:00	2,529	2,914	2,914	4,013	3,629	5.50%	=	1.3%	1.0%	2.3%					
10:00	2,213	2,549	2,549	3,511	3,175	4.81%	=	1.6%	1.4%	3.0%					
11:00	2,191	2,524	2,524	3,476	3,143	4.76%	=	1.6%	1.6%	3.2%					
12:00	2,355	2,713	2,713	3,737	3,378	5.12%	=	1.7%	1.5%	3.2%					
13:00	2,308	2,659	2,659	3,662	3,311	5.02%	=	1.5%	1.3%	2.8%					
14:00	2,542	2,929	2,929	4,034	3,647	5.53%	=	1.6%	1.2%	2.9%					
15:00	2,916	3,359	3,359	4,627	4,183	6.34%	=	1.4%	0.8%	2.2%					
16:00	3,192	3,678	3,678	5,066	4,580	6.94%	=	1.0%	0.5%	1.5%					
17:00	3,649	4,204	4,204	5,790	5,235	7.93%	=	0.4%	0.4%	0.9%					
18:00	3,067	3,534	3,534	4,867	4,400	6.67%	=	0.5%	0.4%	0.9%					
19:00	2,577	2,969	2,969	4,090	3,697	5.60%	=	0.4%	0.3%	0.7%					
20:00	1,938	2,233	2,233	3,075	2,780	4.21%	=	0.4%	0.3%	0.7%					
21:00															
22:00															
23:00															
Starting Time	Average Two-way Hourly Speed (MPH)														
	Existing		Interim Bld		Interim Nbld		Design Bld		Design Nbld						
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.					
0:00															
1:00															
2:00															
3:00															
4:00															
5:00															
6:00	23	20	34	30	18	16	21	19	13	12					
7:00	27	24	37	34	22	20	25	22	16	15					
8:00	38	35	46	41	33	30	36	33	24	21					
9:00	41	37	47	43	36	32	39	35	26	24					
10:00	45	41	49	45	41	38	44	40	33	30					
11:00	46	42	50	45	42	38	45	41	34	31					
12:00	45	40	49	44	40	36	43	39	30	27					
13:00	45	41	50	45	41	37	44	40	32	29					
14:00	42	38	48	44	37	34	41	37	27	24					
15:00	38	34	46	41	31	28	35	32	21	19					
16:00	33	30	43	39	27	24	31	28	18	16					
17:00	28	25	38	35	22	20	25	23	13	12					
18:00	36	33	45	41	30	27	34	31	20	18					
19:00	42	38	48	43	37	33	40	36	27	25					
20:00	48	43	51	46	45	41	47	43	39	35					
21:00															
22:00															
23:00															
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT							

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT

		ENTRADA© - Environmental Traffic Data Input Summary								
		Table 2 - Route 7 Widening								
		0007-029-128, P102, R202, C502, B610; UPC# 52328/616								
Facility	Leesburg Pike			Direction		E/W	Present Year		2011	# of hours
From	Difficult Run			Map Reference		Map provided	Interim Year		2020	15
To	Jarrett Valley Drive/DTR			County	Fairfax		Design Year		2040	Version 11.09
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)									
	EB			WB			Weighted TWO-WAY			Weighted $\%T = [(EB \text{ Vol.} * \%T) + (WB \text{ Vol.} * \%T)] / 2\text{-way Vol.}$ T: Truck
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	1.1%	0.8%	1.8%	
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	1.1%	0.7%	1.8%	
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	0.9%	0.6%	1.5%	
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	1.2%	1.0%	2.2%	
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.5%	1.4%	3.0%	
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.6%	1.6%	3.2%	
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.5%	3.2%	
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.5%	1.3%	2.8%	
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.2%	2.9%	
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.3%	0.8%	2.1%	
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	0.9%	0.5%	1.4%	
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.4%	0.4%	0.9%	
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.5%	0.4%	0.9%	
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.4%	0.3%	0.7%	
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.4%	0.3%	0.7%	
21:00										
22:00										
23:00										
Starting Time	Directional Split, D-factor									
	EB					WB				
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	77%	77%	77%	77%	77%	23%	23%	23%	23%	23%
7:00	69%	69%	69%	69%	69%	31%	31%	31%	31%	31%
8:00	69%	69%	69%	69%	69%	31%	31%	31%	31%	31%
9:00	66%	66%	66%	66%	66%	34%	34%	34%	34%	34%
10:00	59%	59%	59%	59%	59%	41%	41%	41%	41%	41%
11:00	53%	53%	53%	53%	53%	47%	47%	47%	47%	47%
12:00	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
13:00	47%	47%	47%	47%	47%	53%	53%	53%	53%	53%
14:00	41%	41%	41%	41%	41%	59%	59%	59%	59%	59%
15:00	39%	39%	39%	39%	39%	61%	61%	61%	61%	61%
16:00	38%	38%	38%	38%	38%	62%	62%	62%	62%	62%
17:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%
18:00	40%	40%	40%	40%	40%	60%	60%	60%	60%	60%
19:00	38%	38%	38%	38%	38%	62%	62%	62%	62%	62%
20:00	36%	36%	36%	36%	36%	64%	64%	64%	64%	64%
21:00										
22:00										
23:00										



Version 11.09

ENTRADA® - Environmental Traffic Data Output Sheet

Table 2 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Leesburg Pike				Map Reference		Map provided			
From	Difficult Run				Unit Sys= US , BPR Eq with a= 1.0001 and b= 4					
To	Jarrett Valley Drive/DTR									
City/County	Fairfax				Present Year 2011 ADT		54,000	No-build		
Date	11/16/2011	Time Span	15 Hours		Interim Year 2020 ADT		62,000	62,000		
				Design Year 2040 ADT		86,000	77,000			
Eastbound										
Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	2,282	2,620	2,620	3,634	3,254 *	5.49%	77%	0.7%	0.7%	1.4%
7:00	2,236	2,567	2,567	3,561	3,188 *	5.98%	69%	0.6%	0.7%	1.3%
8:00	2,584	2,966	2,966 *	4,115	3,684 *	6.95%	69%	0.3%	0.5%	0.8%
9:00	2,109	2,421	2,421	3,359	3,007 *	5.95%	66%	0.6%	0.8%	1.4%
10:00	1,561	1,792	1,792	2,486	2,226	4.88%	59%	1.0%	1.5%	2.5%
11:00	1,308	1,501	1,501	2,083	1,865	4.60%	53%	1.3%	1.5%	2.8%
12:00	1,311	1,505	1,505	2,088	1,869	4.90%	50%	1.7%	1.7%	3.4%
13:00	1,248	1,433	1,433	1,988	1,780	4.95%	47%	1.6%	1.6%	3.2%
14:00	1,276	1,465	1,465	2,032	1,819	5.71%	41%	1.6%	1.6%	3.2%
15:00	1,390	1,596	1,596	2,214	1,982	6.61%	39%	1.8%	1.1%	2.9%
16:00	1,410	1,619	1,619	2,246	2,011	6.83%	38%	1.4%	0.7%	2.1%
17:00	1,477	1,695	1,695	2,352	2,106	7.45%	37%	0.5%	0.7%	1.3%
18:00	1,477	1,696	1,696	2,353	2,107	6.80%	40%	0.6%	0.6%	1.2%
19:00	1,141	1,310	1,310	1,817	1,627	5.49%	38%	0.6%	0.6%	1.1%
20:00	845	970	970	1,346	1,205	4.29%	36%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										
Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	18	16	31	28	12	11	15	14	6	5
7:00	19	17	33	29	13	12	16	15	6	6
8:00	13	12	26	23	8	8	11	10	4	4
9:00	22	20	35	32	15	14	19	17	8	7
10:00	35	32	45	40	28	26	32	29	17	16
11:00	42	38	48	43	36	33	40	36	26	23
12:00	41	37	48	43	36	32	39	35	25	23
13:00	43	39	49	44	38	34	41	37	28	25
14:00	42	38	48	44	37	34	40	36	27	24
15:00	40	36	47	43	34	30	37	34	23	20
16:00	40	36	47	43	34	31	38	34	23	21
17:00	39	35	47	42	33	30	37	33	22	20
18:00	39	35	47	42	33	30	37	33	22	20
19:00	47	42	50	45	43	39	45	41	35	32
20:00	50	46	51	47	49	44	50	45	46	41
21:00										
22:00										
23:00										
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT		

* Shown when volume exceeds Max. Service Flow

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Table 2 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Leesburg Pike							Map Reference		Map provided			
From	Difficult Run							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4					
To	Jarrett Valley Drive/DTR							Present Year 2011 ADT		54,000		No-build	
City/County	Fairfax							Interim Year 2020 ADT		62,000		62,000	
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		86,000		77,000	
Westbound													
Starting Time	Hourly Volume					Existing		Present % Truck					
	Existing	Interim Bld	Interim Nbld	Design Bld	Design Nbld	% ADT	Dir. Dist.	2A-6T	3A+	Total			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	683	784	784	1,087	973	5.49%	23%	2.4%	1.0%	3.4%			
7:00	994	1,141	1,141	1,583	1,417	5.98%	31%	2.2%	0.9%	3.1%			
8:00	1,172	1,346	1,346	1,867	1,671	6.95%	31%	2.1%	1.0%	3.1%			
9:00	1,105	1,268	1,268	1,759	1,575	5.95%	34%	2.4%	1.4%	3.8%			
10:00	1,073	1,232	1,232	1,709	1,530	4.88%	41%	2.4%	1.3%	3.6%			
11:00	1,177	1,351	1,351	1,874	1,678	4.60%	47%	1.8%	1.8%	3.6%			
12:00	1,332	1,530	1,530	2,122	1,900	4.90%	50%	1.7%	1.3%	3.0%			
13:00	1,422	1,633	1,633	2,265	2,028	4.95%	53%	1.4%	1.0%	2.4%			
14:00	1,810	2,078	2,078	2,882	2,580	5.71%	59%	1.7%	0.9%	2.6%			
15:00	2,182	2,505	2,505	3,475	3,111 *	6.61%	61%	1.1%	0.5%	1.6%			
16:00	2,278	2,616	2,616	3,628	3,249 *	6.83%	62%	0.7%	0.4%	1.0%			
17:00	2,548	2,926	2,926 *	4,058	3,634 *	7.45%	63%	0.4%	0.2%	0.6%			
18:00	2,195	2,520	2,520	3,496	3,130 *	6.80%	60%	0.4%	0.3%	0.7%			
19:00	1,826	2,097	2,097	2,908	2,604	5.49%	62%	0.3%	0.2%	0.5%			
20:00	1,471	1,689	1,689	2,343	2,098	4.29%	64%	0.4%	0.2%	0.6%			
21:00													
22:00													
23:00													
Starting Time	Hourly Speed (MPH)												
	Existing		Interim Bld		Interim Nbld		Design Bld		Design Nbld				
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	51	46	52	47	50	46	51	46	48	44			
7:00	48	43	51	46	45	41	47	43	39	35			
8:00	45	41	49	45	41	37	43	39	31	28			
9:00	46	41	50	45	42	38	44	40	33	30			
10:00	46	42	50	45	43	39	45	41	35	31			
11:00	44	40	49	44	40	36	43	39	30	27			
12:00	41	37	48	43	36	32	39	35	25	22			
13:00	39	36	47	42	33	30	37	33	22	20			
14:00	28	25	40	36	21	19	25	22	11	10			
15:00	20	18	33	30	13	12	17	15	7	6			
16:00	18	17	32	29	12	11	16	14	6	5			
17:00	14	13	27	24	9	8	12	10	4	4			
18:00	21	19	34	31	14	13	18	16	7	6			
19:00	30	28	42	38	23	21	27	25	13	12			
20:00	40	36	47	43	34	31	38	34	23	21			
21:00													
22:00													
23:00													
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT					

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT



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Table 2 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Leesburg Pike							Map Reference		Map provided			
From	Difficult Run							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4					
To	Jarrett Valley Drive/DTR							Present Year 2011 ADT		54,000		No-build	
City/County	Fairfax							Interim Year 2020 ADT		62,000		62,000	
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		86,000		77,000	
Two-way													
Starting Time	Hourly Volume					Existing		Present % Truck					
	Existing	Interim Bld	Interim Nbld	Design Bld	Design Nbld	% ADT	Dir. Dist.	2A-6T	3A+	Total			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	2,965	3,404	3,404	4,722	4,227	5.49%	=	1.1%	0.8%	1.8%			
7:00	3,229	3,708	3,708	5,143	4,605	5.98%	=	1.1%	0.7%	1.8%			
8:00	3,756	4,312	4,312	5,981	5,355	6.95%	=	0.9%	0.6%	1.5%			
9:00	3,214	3,690	3,690	5,118	4,582	5.95%	=	1.2%	1.0%	2.2%			
10:00	2,634	3,025	3,025	4,195	3,756	4.88%	=	1.5%	1.4%	3.0%			
11:00	2,485	2,853	2,853	3,957	3,543	4.60%	=	1.6%	1.6%	3.2%			
12:00	2,643	3,035	3,035	4,210	3,769	4.90%	=	1.7%	1.5%	3.2%			
13:00	2,670	3,066	3,066	4,253	3,808	4.95%	=	1.5%	1.3%	2.8%			
14:00	3,086	3,543	3,543	4,914	4,400	5.71%	=	1.6%	1.2%	2.9%			
15:00	3,572	4,101	4,101	5,688	5,093	6.61%	=	1.3%	0.8%	2.1%			
16:00	3,689	4,235	4,235	5,875	5,260	6.83%	=	0.9%	0.5%	1.4%			
17:00	4,025	4,621	4,621	6,410	5,739 *	7.45%	=	0.4%	0.4%	0.9%			
18:00	3,672	4,216	4,216	5,849	5,236	6.80%	=	0.5%	0.4%	0.9%			
19:00	2,967	3,406	3,406	4,725	4,230	5.49%	=	0.4%	0.3%	0.7%			
20:00	2,316	2,659	2,659	3,688	3,302	4.29%	=	0.4%	0.3%	0.7%			
21:00													
22:00													
23:00													
Starting Time	Average Two-way Hourly Speed (MPH)												
	Existing		Interim Bld		Interim Nbld		Design Bld		Design Nbld				
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	25	23	36	33	21	19	23	21	16	14			
7:00	28	25	38	34	23	21	26	23	16	15			
8:00	23	21	33	30	18	17	21	19	12	11			
9:00	30	27	40	36	24	22	27	25	16	15			
10:00	40	36	47	42	34	31	38	34	24	22			
11:00	43	39	49	44	38	35	41	37	28	25			
12:00	41	37	48	43	36	32	39	35	25	22			
13:00	41	37	48	43	35	32	39	35	25	22			
14:00	34	31	43	39	27	25	31	28	18	16			
15:00	27	25	39	35	21	19	25	22	13	12			
16:00	27	24	38	34	21	19	24	22	13	11			
17:00	23	21	34	31	18	16	21	19	11	10			
18:00	28	25	39	35	22	20	25	23	13	12			
19:00	37	33	45	41	31	28	34	31	22	20			
20:00	44	40	49	44	40	36	42	38	31	28			
21:00													
22:00													
23:00													
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT					

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT

**ENTRADA® - Environmental Traffic Data Input Summary****Table 3 - Route 7 Widening**

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Facility	Reston Pky, Route 602			Direction		N/S	Present Year		2011	# of hours
From	Route 7			Map Reference		Map provided	Interim Year		2020	15
To	The south			County	Fairfax		Design Year		2040	Version 11.09
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)									
	NB			SB			Weighted TWO-WAY			Weighted %T= [(NB Vol.*%T) + (SB Vol.*%T)] / 2-way Vol. T: Truck
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	1.0%	0.8%	1.8%	
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	1.0%	0.7%	1.7%	
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	0.9%	0.6%	1.5%	
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	1.3%	1.0%	2.3%	
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.6%	1.4%	3.0%	
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.6%	1.6%	3.2%	
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.5%	3.2%	
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.5%	1.3%	2.8%	
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.2%	2.9%	
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.3%	0.8%	2.1%	
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	0.9%	0.5%	1.4%	
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.4%	0.4%	0.9%	
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.5%	0.4%	0.9%	
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.4%	0.3%	0.7%	
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.4%	0.3%	0.7%	
21:00										
22:00										
23:00										
Starting Time	Directional Split, D-factor									
	NB					SB				
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	81%	81%	81%	81%	81%	19%	19%	19%	19%	19%
7:00	75%	75%	75%	75%	75%	25%	25%	25%	25%	25%
8:00	69%	69%	69%	69%	69%	31%	31%	31%	31%	31%
9:00	64%	64%	64%	64%	64%	36%	36%	36%	36%	36%
10:00	55%	55%	55%	55%	55%	45%	45%	45%	45%	45%
11:00	53%	53%	53%	53%	53%	47%	47%	47%	47%	47%
12:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%
13:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%
14:00	46%	46%	46%	46%	46%	54%	54%	54%	54%	54%
15:00	40%	40%	40%	40%	40%	60%	60%	60%	60%	60%
16:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%
17:00	39%	39%	39%	39%	39%	61%	61%	61%	61%	61%
18:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%
19:00	34%	34%	34%	34%	34%	66%	66%	66%	66%	66%
20:00	42%	42%	42%	42%	42%	58%	58%	58%	58%	58%
21:00										
22:00										
23:00										

ENTRADA program is developed by Ed Azimi @VDOT-NOVA/TP

Question, Problem & Comments, Please e-mail @ ed.azimi@vdot.virginia.gov



ENTRADA® - Environmental Traffic Data Output Sheet

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Table 3 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Reston Pky, Route 602				Map Reference		Map provided	
From	Route 7				Unit Sys= US , BPR Eq with a= 1.0001 and b= 4			
To	The south				Present Year 2011 ADT			
City/County	Fairfax				Interim Year 2020 ADT			
Date	11/16/2011	Time Span	15 Hours		Design Year 2040 ADT			
					9,500		No-build	
					11,000		11,000	
					15,000		14,000	

Northbound

Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nbld	Design Bld	Design Nbld	% ADT	Dir. Dist.	2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	468	542	542	739	690	6.12%	81%	0.7%	0.7%	1.4%
7:00	484	560	560	764	713	6.80%	75%	0.6%	0.7%	1.3%
8:00	428	496	496	676	631	6.56%	69%	0.3%	0.5%	0.8%
9:00	337	390	390	532	497	5.56%	64%	0.6%	0.8%	1.4%
10:00	244	282	282	385	359	4.64%	55%	1.0%	1.5%	2.5%
11:00	235	272	272	370	346	4.69%	53%	1.3%	1.5%	2.8%
12:00	234	270	270	369	344	5.03%	49%	1.7%	1.7%	3.4%
13:00	231	267	267	364	340	4.99%	49%	1.6%	1.6%	3.2%
14:00	244	282	282	384	359	5.53%	46%	1.6%	1.6%	3.2%
15:00	248	287	287	391	365	6.55%	40%	1.8%	1.1%	2.9%
16:00	253	293	293	400	373	7.14%	37%	1.4%	0.7%	2.1%
17:00	273	316	316	431	403	7.35%	39%	0.5%	0.7%	1.3%
18:00	242	281	281	383	357	6.91%	37%	0.6%	0.6%	1.2%
19:00	187	217	217	295	276	5.86%	34%	0.6%	0.6%	1.1%
20:00	156	180	180	246	229	3.94%	42%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										

Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nbld		Design Bld		Design Nbld	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	38	37	38	37	38	37	37	35	37	36
7:00	38	37	38	37	38	37	36	35	37	36
8:00	38	37	38	37	38	37	37	36	38	36
9:00	39	37	38	37	38	37	38	37	38	37
10:00	39	37	39	37	39	37	38	37	39	37
11:00	39	37	39	37	39	37	38	37	39	37
12:00	39	37	39	37	39	37	38	37	39	37
13:00	39	37	39	37	39	37	38	37	39	37
14:00	39	37	39	37	39	37	38	37	38	37
15:00	39	37	39	37	39	37	38	37	38	37
16:00	39	37	39	37	39	37	38	37	38	37
17:00	39	37	39	37	39	37	38	37	38	37
18:00	39	37	39	37	39	37	38	37	39	37
19:00	39	37	39	37	39	37	39	37	39	37
20:00	39	37	39	37	39	37	39	37	39	37
21:00										
22:00										
23:00										

* Shown when volume exceeds Max. Service Flow

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Table 3 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Reston Pky, Route 602							Map Reference		Map provided			
From	Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4					
To	The south							Present Year 2011 ADT		9,500		No-build	
City/County	Fairfax							Interim Year 2020 ADT		11,000		11,000	
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		15,000		14,000	
Southbound													
Starting Time	Hourly Volume					Existing		Present % Truck					
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.						
								2A-6T	3A+	Total			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	113	131	131	179	167	6.12%	19%	2.4%	1.0%	3.4%			
7:00	163	188	188	257	240	6.80%	25%	2.2%	0.9%	3.1%			
8:00	195	226	226	308	287	6.56%	31%	2.1%	1.0%	3.1%			
9:00	191	221	221	302	282	5.56%	36%	2.4%	1.4%	3.8%			
10:00	197	228	228	311	290	4.64%	45%	2.4%	1.3%	3.6%			
11:00	211	244	244	333	311	4.69%	47%	1.8%	1.8%	3.6%			
12:00	244	283	283	385	360	5.03%	51%	1.7%	1.3%	3.0%			
13:00	244	282	282	385	359	4.99%	51%	1.4%	1.0%	2.4%			
14:00	281	326	326	444	415	5.53%	54%	1.7%	0.9%	2.6%			
15:00	375	434	434	592	552	6.55%	60%	1.1%	0.5%	1.6%			
16:00	425	493	493	672	627	7.14%	63%	0.7%	0.4%	1.0%			
17:00	425	492	492	671	626	7.35%	61%	0.4%	0.2%	0.6%			
18:00	414	480	480	654	611	6.91%	63%	0.4%	0.3%	0.7%			
19:00	370	428	428	584	545	5.86%	66%	0.3%	0.2%	0.5%			
20:00	218	253	253	345	322	3.94%	58%	0.4%	0.2%	0.6%			
21:00													
22:00													
23:00													
Starting Time	Hourly Speed (MPH)												
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl				
	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	39	37	39	37	39	37	39	37	39	37			
7:00	39	37	39	37	39	37	39	37	39	37			
8:00	39	37	39	37	39	37	39	37	39	37			
9:00	39	37	39	37	39	37	39	37	39	37			
10:00	39	37	39	37	39	37	39	37	39	37			
11:00	39	37	39	37	39	37	39	37	39	37			
12:00	39	37	39	37	39	37	38	37	39	37			
13:00	39	37	39	37	39	37	38	37	39	37			
14:00	39	37	39	37	39	37	38	37	38	37			
15:00	38	37	38	37	38	37	38	37	38	37			
16:00	38	37	38	37	38	37	37	36	38	36			
17:00	38	37	38	37	38	37	37	36	38	36			
18:00	38	37	38	37	38	37	37	36	38	37			
19:00	39	37	38	37	38	37	38	37	38	37			
20:00	39	37	39	37	39	37	39	37	39	37			
21:00													
22:00													
23:00													
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT					

* Shown when volume exceeds Max. Service Flow

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Table 3 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Reston Pky, Route 602								Map Reference		Map provided		
From	Route 7								Unit Sys= US , BPR Eq with a= 1.0001 and b= 4				
To	The south								Present Year 2011 ADT		9,500	No-build	
City/County	Fairfax								Interim Year 2020 ADT		11,000	11,000	
Date	11/16/2011	Time Span	15 Hours						Design Year 2040 ADT		15,000	14,000	
Two-way													
Starting Time	Hourly Volume					Existing		Present % Truck					
	Existing	Interim Bld	Interim Nbld	Design Bld	Design Nbld	% ADT	Dir. Dist.						
								2A-6T	3A+	Total			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	582	673	673	918	857	6.12%	=	1.0%	0.8%	1.8%			
7:00	646	748	748	1,021	953	6.80%	=	1.0%	0.7%	1.7%			
8:00	623	721	721	984	918	6.56%	=	0.9%	0.6%	1.5%			
9:00	528	612	612	834	778	5.56%	=	1.3%	1.0%	2.3%			
10:00	441	510	510	696	649	4.64%	=	1.6%	1.4%	3.0%			
11:00	445	516	516	703	656	4.69%	=	1.6%	1.6%	3.2%			
12:00	478	553	553	754	704	5.03%	=	1.7%	1.5%	3.2%			
13:00	474	549	549	749	699	4.99%	=	1.5%	1.3%	2.8%			
14:00	525	608	608	829	774	5.53%	=	1.6%	1.2%	2.9%			
15:00	622	721	721	983	917	6.55%	=	1.3%	0.8%	2.1%			
16:00	679	786	786	1,071	1,000	7.14%	=	0.9%	0.5%	1.4%			
17:00	698	808	808	1,102	1,028	7.35%	=	0.4%	0.4%	0.9%			
18:00	657	760	760	1,037	968	6.91%	=	0.5%	0.4%	0.9%			
19:00	557	645	645	880	821	5.86%	=	0.4%	0.3%	0.7%			
20:00	374	433	433	590	551	3.94%	=	0.4%	0.3%	0.7%			
21:00													
22:00													
23:00													
Starting Time	Average Two-way Hourly Speed (MPH)												
	Existing		Interim Bld		Interim Nbld		Design Bld		Design Nbld				
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	38	37	38	37	38	37	37	36	37	36			
7:00	38	37	38	37	38	37	37	36	37	36			
8:00	38	37	38	37	38	37	38	36	38	37			
9:00	39	37	39	37	39	37	38	37	38	37			
10:00	39	37	39	37	39	37	39	37	39	37			
11:00	39	37	39	37	39	37	39	37	39	37			
12:00	39	37	39	37	39	37	38	37	39	37			
13:00	39	37	39	37	39	37	38	37	39	37			
14:00	39	37	39	37	39	37	38	37	38	37			
15:00	39	37	38	37	38	37	38	37	38	37			
16:00	38	37	38	37	38	37	38	37	38	37			
17:00	38	37	38	37	38	37	38	37	38	37			
18:00	39	37	38	37	38	37	38	37	38	37			
19:00	39	37	38	37	38	37	38	37	38	37			
20:00	39	37	39	37	39	37	39	37	39	37			
21:00													
22:00													
23:00													
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT					

* Shown when volume exceeds Max. Service Flow

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**ENTRADA® - Environmental Traffic Data Input Summary****Table 4 - Route 7 Widening**

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Facility	Baron Cameron Ave., Route 606			Direction		N/S	Present Year		2011	# of hours
From	Route 7			Map Reference		Map provided	Interim Year		2020	15
To	The south			County	Fairfax		Design Year		2040	Version 11.09
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)									
	NB			SB			Weighted TWO-WAY			Weighted %T= [(NB Vol.*%T) + (SB Vol.*%T)] / 2-way Vol. T: Truck
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	1.0%	0.8%	1.8%	
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	1.0%	0.7%	1.7%	
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	0.9%	0.6%	1.5%	
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	1.3%	1.0%	2.3%	
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.6%	1.4%	3.0%	
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.6%	1.6%	3.2%	
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.5%	3.2%	
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.5%	1.3%	2.8%	
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.2%	2.9%	
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.3%	0.8%	2.1%	
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	0.9%	0.5%	1.4%	
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.4%	0.4%	0.9%	
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.5%	0.4%	0.9%	
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.4%	0.3%	0.7%	
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.4%	0.3%	0.7%	
21:00										
22:00										
23:00										
Starting Time	Directional Split, D-factor									
	NB					SB				
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	81%	81%	81%	81%	81%	19%	19%	19%	19%	19%
7:00	75%	75%	75%	75%	75%	25%	25%	25%	25%	25%
8:00	69%	69%	69%	69%	69%	31%	31%	31%	31%	31%
9:00	64%	64%	64%	64%	64%	36%	36%	36%	36%	36%
10:00	55%	55%	55%	55%	55%	45%	45%	45%	45%	45%
11:00	53%	53%	53%	53%	53%	47%	47%	47%	47%	47%
12:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%
13:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%
14:00	46%	46%	46%	46%	46%	54%	54%	54%	54%	54%
15:00	40%	40%	40%	40%	40%	60%	60%	60%	60%	60%
16:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%
17:00	39%	39%	39%	39%	39%	61%	61%	61%	61%	61%
18:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%
19:00	34%	34%	34%	34%	34%	66%	66%	66%	66%	66%
20:00	42%	42%	42%	42%	42%	58%	58%	58%	58%	58%
21:00										
22:00										
23:00										
ENTRADA program is developed by Ed Azimi @VDOT-NOVA/TP										
Question, Problem & Comments. Please e-mail @ ed.azimi@vdot.virginia.gov										

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Table 4 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Baron Cameron Ave., Route 606				Map Reference		Map provided	
From	Route 7				Unit Sys= US , BPR Eq with a= 1.0001 and b= 4			
To	The south				Present Year 2011 ADT			
City/County	Fairfax				Interim Year 2020 ADT			
Date	11/16/2011	Time Span	15 Hours		Design Year 2040 ADT			
					27,000	No-build		
					31,000	31,000		
					43,000	39,000		

Northbound

Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.			
								2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	1,331	1,528	1,528	2,119	1,922	6.12%	81%	0.7%	0.7%	1.4%
7:00	1,375	1,578	1,578	2,189	1,986	6.80%	75%	0.6%	0.7%	1.3%
8:00	1,216	1,396	1,396	1,937	1,757	6.56%	69%	0.3%	0.5%	0.8%
9:00	958	1,100	1,100	1,526	1,384	5.56%	64%	0.6%	0.8%	1.4%
10:00	693	795	795	1,103	1,000	4.64%	55%	1.0%	1.5%	2.5%
11:00	667	765	765	1,062	963	4.69%	53%	1.3%	1.5%	2.8%
12:00	664	762	762	1,057	959	5.03%	49%	1.7%	1.7%	3.4%
13:00	655	753	753	1,044	947	4.99%	49%	1.6%	1.6%	3.2%
14:00	692	795	795	1,102	1,000	5.53%	46%	1.6%	1.6%	3.2%
15:00	704	808	808	1,121	1,017	6.55%	40%	1.8%	1.1%	2.9%
16:00	720	826	826	1,146	1,039	7.14%	37%	1.4%	0.7%	2.1%
17:00	776	891	891	1,236	1,121	7.35%	39%	0.5%	0.7%	1.3%
18:00	689	791	791	1,097	995	6.91%	37%	0.6%	0.6%	1.2%
19:00	532	610	610	847	768	5.86%	34%	0.6%	0.6%	1.1%
20:00	442	508	508	705	639	3.94%	42%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										

Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	26	25	21	20	21	20	9	9	12	12
7:00	25	24	20	19	20	19	8	8	11	11
8:00	30	29	25	24	25	24	12	12	16	15
9:00	36	35	33	32	33	32	21	20	25	24
10:00	39	38	38	37	38	37	32	31	34	33
11:00	39	38	38	37	38	37	32	31	35	34
12:00	39	38	38	37	38	37	32	31	35	33
13:00	39	38	38	37	38	37	33	32	35	34
14:00	39	38	38	37	38	37	31	30	34	33
15:00	39	38	38	37	38	37	31	30	33	32
16:00	39	38	38	37	38	37	31	30	33	32
17:00	39	37	37	36	37	36	29	28	32	31
18:00	40	38	38	37	38	37	33	32	35	34
19:00	41	39	40	39	40	39	38	37	39	38
20:00	41	40	41	39	41	39	39	38	40	39
21:00										
22:00										
23:00										

* Shown when volume exceeds Max. Service Flow

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Table 4 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Baron Cameron Ave., Route 606							Map Reference		Map provided		
From	Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4				
To	The south							Present Year 2011 ADT		27,000	No-build	
City/County	Fairfax							Interim Year 2020 ADT		31,000	31,000	
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		43,000	39,000	
Southbound												
Starting Time	Hourly Volume					Existing		Present % Truck				
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	Present	% Truck			
								2A-6T	3A+	Total		
0:00												
1:00												
2:00												
3:00												
4:00												
5:00												
6:00	322	370	370	513	465	6.12%	19%	2.4%	1.0%	3.4%		
7:00	462	531	531	737	668	6.80%	25%	2.2%	0.9%	3.1%		
8:00	554	637	637	883	801	6.56%	31%	2.1%	1.0%	3.1%		
9:00	543	624	624	865	784	5.56%	36%	2.4%	1.4%	3.8%		
10:00	560	643	643	892	809	4.64%	45%	2.4%	1.3%	3.6%		
11:00	599	688	688	954	865	4.69%	47%	1.8%	1.8%	3.6%		
12:00	694	796	796	1,104	1,002	5.03%	51%	1.7%	1.3%	3.0%		
13:00	693	795	795	1,103	1,001	4.99%	51%	1.4%	1.0%	2.4%		
14:00	800	918	918	1,274	1,155	5.53%	54%	1.7%	0.9%	2.6%		
15:00	1,065	1,223	1,223	1,696	1,538	6.55%	60%	1.1%	0.5%	1.6%		
16:00	1,209	1,388	1,388	1,925	1,746	7.14%	63%	0.7%	0.4%	1.0%		
17:00	1,207	1,386	1,386	1,922	1,743	7.35%	61%	0.4%	0.2%	0.6%		
18:00	1,178	1,352	1,352	1,876	1,701	6.91%	63%	0.4%	0.3%	0.7%		
19:00	1,052	1,207	1,207	1,675	1,519	5.86%	66%	0.3%	0.2%	0.5%		
20:00	620	712	712	988	896	3.94%	58%	0.4%	0.2%	0.6%		
21:00												
22:00												
23:00												
Starting Time	Hourly Speed (MPH)											
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl			
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.		
0:00												
1:00												
2:00												
3:00												
4:00												
5:00												
6:00	41	40	41	40	41	40	40	39	41	39		
7:00	41	39	40	39	40	39	39	37	39	38		
8:00	40	39	40	38	40	38	36	35	38	37		
9:00	40	39	40	38	40	38	36	35	38	37		
10:00	40	39	40	38	40	38	36	35	37	36		
11:00	40	39	39	38	39	38	35	33	36	35		
12:00	39	38	38	37	38	37	31	30	34	33		
13:00	39	38	38	37	38	37	32	31	34	33		
14:00	38	37	36	35	36	35	27	26	30	29		
15:00	33	32	29	28	29	28	16	16	20	20		
16:00	30	29	25	24	25	24	12	12	16	15		
17:00	30	30	26	25	26	25	13	12	16	16		
18:00	31	30	26	26	26	26	13	13	17	17		
19:00	34	33	31	30	31	30	18	18	22	21		
20:00	40	39	39	38	39	38	36	34	37	36		
21:00												
22:00												
23:00												
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT				

* Shown when volume exceeds Max. Service Flow

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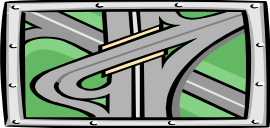
Table 4 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Baron Cameron Ave., Route 606							Map Reference		Map provided					
From	Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4							
To	The south							Present Year 2011 ADT		27,000	No-build				
City/County	Fairfax							Interim Year 2020 ADT		31,000	31,000				
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		43,000	39,000				
Two-way															
Starting Time	Hourly Volume					Existing		Present % Truck							
	Existing	Interim Bld	Interim Nbld	Design Bld	Design Nbld	% ADT	Dir. Dist.	2A-6T	3A+	Total					
0:00															
1:00															
2:00															
3:00															
4:00															
5:00															
6:00	1,653	1,898	1,898	2,632	2,387	6.12%	=	1.0%	0.8%	1.8%					
7:00	1,837	2,109	2,109	2,926	2,654	6.80%	=	1.0%	0.7%	1.7%					
8:00	1,771	2,033	2,033	2,820	2,558	6.56%	=	0.9%	0.6%	1.5%					
9:00	1,501	1,723	1,723	2,390	2,168	5.56%	=	1.3%	1.0%	2.3%					
10:00	1,252	1,438	1,438	1,995	1,809	4.64%	=	1.6%	1.4%	3.0%					
11:00	1,266	1,453	1,453	2,016	1,828	4.69%	=	1.6%	1.6%	3.2%					
12:00	1,357	1,558	1,558	2,161	1,960	5.03%	=	1.7%	1.5%	3.2%					
13:00	1,348	1,548	1,548	2,147	1,947	4.99%	=	1.5%	1.3%	2.8%					
14:00	1,492	1,713	1,713	2,376	2,155	5.53%	=	1.6%	1.2%	2.9%					
15:00	1,769	2,031	2,031	2,817	2,555	6.55%	=	1.3%	0.8%	2.1%					
16:00	1,929	2,214	2,214	3,071	2,786	7.14%	=	0.9%	0.5%	1.4%					
17:00	1,983	2,277	2,277	3,159	2,865	7.35%	=	0.4%	0.4%	0.9%					
18:00	1,867	2,143	2,143	2,973	2,696	6.91%	=	0.5%	0.4%	0.9%					
19:00	1,583	1,818	1,818	2,521	2,287	5.86%	=	0.4%	0.3%	0.7%					
20:00	1,063	1,220	1,220	1,693	1,535	3.94%	=	0.4%	0.3%	0.7%					
21:00															
22:00															
23:00															
Starting Time	Average Two-way Hourly Speed (MPH)														
	Existing		Interim Bld		Interim Nbld		Design Bld		Design Nbld						
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.					
0:00															
1:00															
2:00															
3:00															
4:00															
5:00															
6:00	29	28	25	24	25	24	15	15	18	17					
7:00	29	28	25	24	25	24	16	15	18	18					
8:00	33	32	30	29	30	29	20	19	23	22					
9:00	37	36	35	34	35	34	26	26	29	29					
10:00	40	38	39	38	39	38	33	32	36	35					
11:00	40	38	39	38	39	38	33	32	36	34					
12:00	39	38	38	37	38	37	32	31	34	33					
13:00	39	38	38	37	38	37	32	31	35	33					
14:00	38	37	37	36	37	36	29	28	32	31					
15:00	36	34	33	32	33	32	22	21	26	25					
16:00	33	32	30	29	30	29	19	19	22	22					
17:00	34	33	30	29	30	29	19	18	22	22					
18:00	34	33	31	30	31	30	21	20	24	23					
19:00	36	35	34	33	34	33	25	24	28	27					
20:00	40	39	40	39	40	39	37	36	38	37					
21:00															
22:00															
23:00															
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT							

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT

		ENTRADA© - Environmental Traffic Data Input Summary						
		Table 5 - Route 7 Widening						
		0007-029-128, P102, R202, C502, B610; UPC# 52328/616						
Facility	Springvale Road, Route 674		Direction		N/S	Present Year	2011	# of hours
From	Route 7		Map Reference		Map provided	Interim Year	2020	15
To	The north		County	Fairfax		Design Year	2040	Version 11.09
Traffic and Geometric Data								
Sys. Unit	E	Facility Length (Mi)		1.00	BPR a & b= 1 & 4		Terrain	Level
Input		Existing	Interim Bld	Interim Nbld	Design Bld	Design Nbld	Notes	
Two-way ADT		5,100	6,000	6,000	8,000	7,000	Additional inputs.....	
% Truck ADT		0%	0%	0%	0%	0%		
Adjusted ADT		Hourly	Percent	Truck	Is	Available		
Practical Capacity (phpl)		640	640	640	640	640		
Facility Type		Minor Art.	Minor Art.	Minor Art.	Minor Art.	Minor Art.		
Median Type		Divided	Divided	Divided	Divided	Divided		
NB # of lanes		1	1	1	1	1		
SB # of lanes		1	1	1	1	1		
Outside shldr. width (ft)		0.00	0.00	0.00	0.00	0.00		
Inside shldr. width (ft)		0.00	0.00	0.00	0.00	0.00		
Lane Width (ft)		12.00	12.00	12.00	12.00	12.00		
Access/Intchg Density		5	5	5	5	5		
Number of Signals		0	0	0	0	0		
Signal Quality		-	-	-	-	-		
Cycle Length (sec.)		0	0	0	0	0		
Effective Green (sec.)		0	0	0	0	0	* Ideal FFS calculated using NCHRP-355 Report, PS> 50 mph, FFS=0.88*(PS/1.609)+22, PS= 35-50 mph, FFS=0.79*(PS/1.609)+19. PS< 35 mph, FFS=PS. Adjusted FFS= FFS - Facility Correction	
Posted Speed (mph)		35	35	35	35	35		
Ideal FFS (mph)		36	36	36	36	36		
Adjusted FFS (mph)		30	30	30	30	30		
Past, Present & Future Traffic Statistics								
Starting Time	Existing Hourly K-factor (Hourly Traffic/ADT) and Traffic Volume for 15 hours						NOTE: For more K-factors (V_h/V_{24}), see Lookup Tables. These tables (19-36) are extracted from NCHRP Report # 187.	
	Existing	Ex. K-factor	Interim Bld	Interim Nbld	Design Bld	Design Nbld		
0:00								
1:00								
2:00								
3:00								
4:00								
5:00								
6:00	0	6.1%	367	367	490	429		
7:00	0	6.8%	408	408	544	476		
8:00	0	6.6%	393	393	525	459		
9:00	0	5.6%	334	334	445	389		
10:00	0	4.6%	278	278	371	325		
11:00	0	4.7%	281	281	375	328		
12:00	0	5.0%	302	302	402	352		
13:00	0	5.0%	300	300	399	350		
14:00	0	5.5%	332	332	442	387		
15:00	0	6.6%	393	393	524	459		
16:00	0	7.1%	429	429	571	500		
17:00	0	7.3%	441	441	588	514		
18:00	0	6.9%	415	415	553	484		
19:00	0	5.9%	352	352	469	410		
20:00	0	3.9%	236	236	315	276		
21:00								
22:00								
23:00								

**ENTRADA® - Environmental Traffic Data Input Summary****Table 5 - Route 7 Widening**

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Facility	Springvale Road, Route 674			Direction		N/S	Present Year		2011	# of hours
From	Route 7			Map Reference		Map provided	Interim Year		2020	15
To	The north			County	Fairfax		Design Year		2040	Version 11.09
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)									
	NB			SB			Weighted TWO-WAY			Weighted %T= [(NB Vol.*%T) + (SB Vol.*%T)] / 2-way Vol. T: Truck
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	1.0%	0.8%	1.8%	
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	1.0%	0.7%	1.7%	
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	0.9%	0.6%	1.5%	
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	1.3%	1.0%	2.3%	
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.6%	1.4%	3.0%	
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.6%	1.6%	3.2%	
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.5%	3.2%	
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.5%	1.3%	2.8%	
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.2%	2.9%	
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.3%	0.8%	2.1%	
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	0.9%	0.5%	1.4%	
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.4%	0.4%	0.9%	
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.5%	0.4%	0.9%	
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.4%	0.3%	0.7%	
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.4%	0.3%	0.7%	
21:00										
22:00										
23:00										
Starting Time	Directional Split, D-factor									
	NB					SB				
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	81%	81%	81%	81%	81%	19%	19%	19%	19%	19%
7:00	75%	75%	75%	75%	75%	25%	25%	25%	25%	25%
8:00	69%	69%	69%	69%	69%	31%	31%	31%	31%	31%
9:00	64%	64%	64%	64%	64%	36%	36%	36%	36%	36%
10:00	55%	55%	55%	55%	55%	45%	45%	45%	45%	45%
11:00	53%	53%	53%	53%	53%	47%	47%	47%	47%	47%
12:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%
13:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%
14:00	46%	46%	46%	46%	46%	54%	54%	54%	54%	54%
15:00	40%	40%	40%	40%	40%	60%	60%	60%	60%	60%
16:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%
17:00	39%	39%	39%	39%	39%	61%	61%	61%	61%	61%
18:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%
19:00	34%	34%	34%	34%	34%	66%	66%	66%	66%	66%
20:00	42%	42%	42%	42%	42%	58%	58%	58%	58%	58%
21:00										
22:00										
23:00										

ENTRADA program is developed by Ed Azimi @VDOT-NOVA/TP

Question, Problem & Comments, Please e-mail @ ed.azimi@vdot.virginia.gov

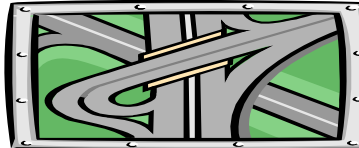


ENTRADA® - Environmental Traffic Data Output Sheet

Version 11.09

Table 5 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Springvale Road, Route 674				Map Reference		Map provided	
From	Route 7				Unit Sys= US , BPR Eq with a= 1.0001 and b= 4			
To	The north				Present Year 2011 ADT			
City/County	Fairfax				Interim Year 2020 ADT			
Date	11/16/2011	Time Span	15 Hours		Design Year 2040 ADT			
					5,100		No-build	
					6,000		6,000	
					8,000		7,000	

Northbound

Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.			
								2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	251	296	296	394	345	6.12%	81%	0.7%	0.7%	1.4%
7:00	260	305	305	407	356	6.80%	75%	0.6%	0.7%	1.3%
8:00	230	270	270	360	315	6.56%	69%	0.3%	0.5%	0.8%
9:00	181	213	213	284	248	5.56%	64%	0.6%	0.8%	1.4%
10:00	131	154	154	205	180	4.64%	55%	1.0%	1.5%	2.5%
11:00	126	148	148	198	173	4.69%	53%	1.3%	1.5%	2.8%
12:00	125	147	147	197	172	5.03%	49%	1.7%	1.7%	3.4%
13:00	124	146	146	194	170	4.99%	49%	1.6%	1.6%	3.2%
14:00	131	154	154	205	179	5.53%	46%	1.6%	1.6%	3.2%
15:00	133	156	156	209	182	6.55%	40%	1.8%	1.1%	2.9%
16:00	136	160	160	213	187	7.14%	37%	1.4%	0.7%	2.1%
17:00	147	173	173	230	201	7.35%	39%	0.5%	0.7%	1.3%
18:00	130	153	153	204	179	6.91%	37%	0.6%	0.6%	1.2%
19:00	100	118	118	158	138	5.86%	34%	0.6%	0.6%	1.1%
20:00	84	98	98	131	115	3.94%	42%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										

Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	35	29	34	28	34	28	31	25	33	27
7:00	35	29	34	28	34	28	30	25	33	27
8:00	36	29	35	29	35	29	33	27	34	28
9:00	36	29	36	29	36	29	35	28	35	29
10:00	36	29	36	29	36	29	36	29	36	29
11:00	36	29	36	29	36	29	36	29	36	29
12:00	36	29	36	29	36	29	36	29	36	29
13:00	36	29	36	29	36	29	36	29	36	29
14:00	36	29	36	29	36	29	36	29	36	29
15:00	36	29	36	29	36	29	36	29	36	29
16:00	36	29	36	29	36	29	36	29	36	29
17:00	36	29	36	29	36	29	35	29	36	29
18:00	36	29	36	29	36	29	36	29	36	29
19:00	36	30	36	29	36	29	36	29	36	29
20:00	36	30	36	30	36	30	36	29	36	30
21:00										
22:00										
23:00										

* Shown when volume exceeds Max. Service Flow

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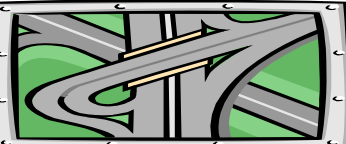


Version 11.09

ENTRADA® - Environmental Traffic Data Output Sheet

Table 5 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Springvale Road, Route 674							Map Reference		Map provided			
From	Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4					
To	The north							Present Year 2011 ADT		5,100		No-build	
City/County	Fairfax							Interim Year 2020 ADT		6,000		6,000	
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		8,000		7,000	
Southbound													
Starting Time	Hourly Volume					Existing		Present % Truck					
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.						
								2A-6T	3A+	Total			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	61	72	72	95	84	6.12%	19%	2.4%	1.0%	3.4%			
7:00	87	103	103	137	120	6.80%	25%	2.2%	0.9%	3.1%			
8:00	105	123	123	164	144	6.56%	31%	2.1%	1.0%	3.1%			
9:00	103	121	121	161	141	5.56%	36%	2.4%	1.4%	3.8%			
10:00	106	124	124	166	145	4.64%	45%	2.4%	1.3%	3.6%			
11:00	113	133	133	177	155	4.69%	47%	1.8%	1.8%	3.6%			
12:00	131	154	154	205	180	5.03%	51%	1.7%	1.3%	3.0%			
13:00	131	154	154	205	180	4.99%	51%	1.4%	1.0%	2.4%			
14:00	151	178	178	237	207	5.53%	54%	1.7%	0.9%	2.6%			
15:00	201	237	237	315	276	6.55%	60%	1.1%	0.5%	1.6%			
16:00	228	269	269	358	313	7.14%	63%	0.7%	0.4%	1.0%			
17:00	228	268	268	358	313	7.35%	61%	0.4%	0.2%	0.6%			
18:00	222	262	262	349	305	6.91%	63%	0.4%	0.3%	0.7%			
19:00	199	234	234	312	273	5.86%	66%	0.3%	0.2%	0.5%			
20:00	117	138	138	184	161	3.94%	58%	0.4%	0.2%	0.6%			
21:00													
22:00													
23:00													
Starting Time	Hourly Speed (MPH)												
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl				
	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	36	30	36	30	36	30	36	30	36	30			
7:00	36	30	36	30	36	30	36	29	36	29			
8:00	36	30	36	29	36	29	36	29	36	29			
9:00	36	30	36	29	36	29	36	29	36	29			
10:00	36	30	36	29	36	29	36	29	36	29			
11:00	36	29	36	29	36	29	36	29	36	29			
12:00	36	29	36	29	36	29	36	29	36	29			
13:00	36	29	36	29	36	29	36	29	36	29			
14:00	36	29	36	29	36	29	35	29	36	29			
15:00	36	29	35	29	35	29	34	28	35	28			
16:00	36	29	35	29	35	29	33	27	34	28			
17:00	36	29	35	29	35	29	33	27	34	28			
18:00	36	29	35	29	35	29	33	27	34	28			
19:00	36	29	36	29	36	29	34	28	35	29			
20:00	36	29	36	29	36	29	36	29	36	29			
21:00													
22:00													
23:00													
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT					

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT



Version 11.09

ENTRADA® - Environmental Traffic Data Output Sheet

Table 5 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Springvale Road, Route 674							Map Reference		Map provided		
From	Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4				
To	The north							Present Year 2011 ADT		5,100	No-build	
City/County	Fairfax							Interim Year 2020 ADT		6,000	6,000	
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		8,000	7,000	
Two-way												
Starting Time	Hourly Volume					Existing		Present % Truck				
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	2A-6T	3A+	Total		
0:00												
1:00												
2:00												
3:00												
4:00												
5:00												
6:00	312	367	367	490	429	6.12%	=	1.0%	0.8%	1.8%		
7:00	347	408	408	544	476	6.80%	=	1.0%	0.7%	1.7%		
8:00	334	393	393	525	459	6.56%	=	0.9%	0.6%	1.5%		
9:00	284	334	334	445	389	5.56%	=	1.3%	1.0%	2.3%		
10:00	237	278	278	371	325	4.64%	=	1.6%	1.4%	3.0%		
11:00	239	281	281	375	328	4.69%	=	1.6%	1.6%	3.2%		
12:00	256	302	302	402	352	5.03%	=	1.7%	1.5%	3.2%		
13:00	255	300	300	399	350	4.99%	=	1.5%	1.3%	2.8%		
14:00	282	332	332	442	387	5.53%	=	1.6%	1.2%	2.9%		
15:00	334	393	393	524	459	6.55%	=	1.3%	0.8%	2.1%		
16:00	364	429	429	571	500	7.14%	=	0.9%	0.5%	1.4%		
17:00	375	441	441	588	514	7.35%	=	0.4%	0.4%	0.9%		
18:00	353	415	415	553	484	6.91%	=	0.5%	0.4%	0.9%		
19:00	299	352	352	469	410	5.86%	=	0.4%	0.3%	0.7%		
20:00	201	236	236	315	276	3.94%	=	0.4%	0.3%	0.7%		
21:00												
22:00												
23:00												
Starting Time	Average Two-way Hourly Speed (MPH)											
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl			
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.		
0:00												
1:00												
2:00												
3:00												
4:00												
5:00												
6:00	35	29	35	28	35	28	32	26	34	27		
7:00	35	29	35	28	35	28	32	26	33	27		
8:00	36	29	35	29	35	29	34	27	35	28		
9:00	36	29	36	29	36	29	35	29	36	29		
10:00	36	29	36	29	36	29	36	29	36	29		
11:00	36	29	36	29	36	29	36	29	36	29		
12:00	36	29	36	29	36	29	36	29	36	29		
13:00	36	29	36	29	36	29	36	29	36	29		
14:00	36	29	36	29	36	29	35	29	36	29		
15:00	36	29	36	29	36	29	35	28	35	29		
16:00	36	29	35	29	35	29	34	28	35	28		
17:00	36	29	35	29	35	29	34	28	35	28		
18:00	36	29	35	29	35	29	34	28	35	28		
19:00	36	29	36	29	36	29	35	28	35	29		
20:00	36	30	36	29	36	29	36	29	36	29		
21:00												
22:00												
23:00												
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT				

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT

**ENTRADA® - Environmental Traffic Data Input Summary****Table 6 - Route 7 Widening**

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Facility	Colvin Run Road, Route 743			Direction		N/S	Present Year		2011	# of hours	
From	Route 7			Map Reference		Map provided	Interim Year		2020	15	
To	Route 7			County	Fairfax		Design Year		2040	Version 11.09	
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)										
	NB			SB			Weighted TWO-WAY			Weighted %T= [(NB Vol.*%T) + (SB Vol.*%T)] / 2-way Vol. T: Truck	
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck		
0:00											
1:00											
2:00											
3:00											
4:00											
5:00											
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	1.0%	0.8%	1.8%		
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	1.0%	0.7%	1.7%		
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	0.9%	0.6%	1.5%		
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	1.3%	1.0%	2.3%		
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.6%	1.4%	3.0%		
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.6%	1.6%	3.2%		
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.5%	3.2%		
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.5%	1.3%	2.8%		
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.2%	2.9%		
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.3%	0.8%	2.1%		
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	0.9%	0.5%	1.4%		
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.4%	0.4%	0.9%		
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.5%	0.4%	0.9%		
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.4%	0.3%	0.7%		
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.4%	0.3%	0.7%		
21:00											
22:00											
23:00											
Starting Time	Directional Split, D-factor										
	NB					SB					
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	
0:00											
1:00											
2:00											
3:00											
4:00											
5:00											
6:00	81%	81%	81%	81%	81%	19%	19%	19%	19%	19%	
7:00	75%	75%	75%	75%	75%	25%	25%	25%	25%	25%	
8:00	69%	69%	69%	69%	69%	31%	31%	31%	31%	31%	
9:00	64%	64%	64%	64%	64%	36%	36%	36%	36%	36%	
10:00	55%	55%	55%	55%	55%	45%	45%	45%	45%	45%	
11:00	53%	53%	53%	53%	53%	47%	47%	47%	47%	47%	
12:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%	
13:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%	
14:00	46%	46%	46%	46%	46%	54%	54%	54%	54%	54%	
15:00	40%	40%	40%	40%	40%	60%	60%	60%	60%	60%	
16:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%	
17:00	39%	39%	39%	39%	39%	61%	61%	61%	61%	61%	
18:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%	
19:00	34%	34%	34%	34%	34%	66%	66%	66%	66%	66%	
20:00	42%	42%	42%	42%	42%	58%	58%	58%	58%	58%	
21:00											
22:00											
23:00											

ENTRADA program is developed by Ed Azimi @VDOT-NOVA/TP

Question, Problem & Comments, Please e-mail @ ed.azimi@vdot.virginia.gov



ENTRADA® - Environmental Traffic Data Output Sheet

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Table 6 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Colvin Run Road, Route 743				Map Reference		Map provided	
From	Route 7				Unit Sys= US , BPR Eq with a= 1.0001 and b= 4			
To	Route 7							
City/County	Fairfax							
Date	11/16/2011	Time Span	15 Hours					
					Present Year 2011 ADT	4,500	No-build	
					Interim Year 2020 ADT	5,000	5,000	
					Design Year 2040 ADT	7,000	6,000	

Northbound										
Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	222	246	246	345	296	6.12%	81%	0.7%	0.7%	1.4%
7:00	229	255	255	356	305	6.80%	75%	0.6%	0.7%	1.3%
8:00	203	225	225	315	270	6.56%	69%	0.3%	0.5%	0.8%
9:00	160	177	177	248	213	5.56%	64%	0.6%	0.8%	1.4%
10:00	115	128	128	180	154	4.64%	55%	1.0%	1.5%	2.5%
11:00	111	123	123	173	148	4.69%	53%	1.3%	1.5%	2.8%
12:00	111	123	123	172	147	5.03%	49%	1.7%	1.7%	3.4%
13:00	109	121	121	170	146	4.99%	49%	1.6%	1.6%	3.2%
14:00	115	128	128	179	154	5.53%	46%	1.6%	1.6%	3.2%
15:00	117	130	130	182	156	6.55%	40%	1.8%	1.1%	2.9%
16:00	120	133	133	187	160	7.14%	37%	1.4%	0.7%	2.1%
17:00	129	144	144	201	173	7.35%	39%	0.5%	0.7%	1.3%
18:00	115	128	128	179	153	6.91%	37%	0.6%	0.6%	1.2%
19:00	89	98	98	138	118	5.86%	34%	0.6%	0.6%	1.1%
20:00	74	82	82	115	98	3.94%	42%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										

Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	36	27	35	27	35	27	33	25	34	27
7:00	36	27	35	27	35	27	33	25	34	26
8:00	36	28	36	27	36	27	34	26	35	27
9:00	36	28	36	28	36	28	35	27	36	28
10:00	36	28	36	28	36	28	36	28	36	28
11:00	36	28	36	28	36	28	36	28	36	28
12:00	36	28	36	28	36	28	36	28	36	28
13:00	36	28	36	28	36	28	36	28	36	28
14:00	36	28	36	28	36	28	36	28	36	28
15:00	36	28	36	28	36	28	36	28	36	28
16:00	36	28	36	28	36	28	36	28	36	28
17:00	36	28	36	28	36	28	36	28	36	28
18:00	36	28	36	28	36	28	36	28	36	28
19:00	36	28	36	28	36	28	36	28	36	28
20:00	36	28	36	28	36	28	36	28	36	28
21:00										
22:00										
23:00										

* Shown when volume exceeds Max. Service Flow

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Table 6 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Colvin Run Road, Route 743							Map Reference		Map provided		
From	Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4				
To	Route 7							Present Year 2011 ADT		4,500	No-build	
City/County	Fairfax							Interim Year 2020 ADT		5,000	5,000	
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		7,000	6,000	
Southbound												
Starting Time	Hourly Volume					Existing		Present % Truck				
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	Present	% Truck			
								2A-6T	3A+	Total		
0:00												
1:00												
2:00												
3:00												
4:00												
5:00												
6:00	54	60	60	84	72	6.12%	19%	2.4%	1.0%	3.4%		
7:00	77	86	86	120	103	6.80%	25%	2.2%	0.9%	3.1%		
8:00	92	103	103	144	123	6.56%	31%	2.1%	1.0%	3.1%		
9:00	91	101	101	141	121	5.56%	36%	2.4%	1.4%	3.8%		
10:00	93	104	104	145	124	4.64%	45%	2.4%	1.3%	3.6%		
11:00	100	111	111	155	133	4.69%	47%	1.8%	1.8%	3.6%		
12:00	116	128	128	180	154	5.03%	51%	1.7%	1.3%	3.0%		
13:00	115	128	128	180	154	4.99%	51%	1.4%	1.0%	2.4%		
14:00	133	148	148	207	178	5.53%	54%	1.7%	0.9%	2.6%		
15:00	177	197	197	276	237	6.55%	60%	1.1%	0.5%	1.6%		
16:00	201	224	224	313	269	7.14%	63%	0.7%	0.4%	1.0%		
17:00	201	224	224	313	268	7.35%	61%	0.4%	0.2%	0.6%		
18:00	196	218	218	305	262	6.91%	63%	0.4%	0.3%	0.7%		
19:00	175	195	195	273	234	5.86%	66%	0.3%	0.2%	0.5%		
20:00	103	115	115	161	138	3.94%	58%	0.4%	0.2%	0.6%		
21:00												
22:00												
23:00												
Starting Time	Hourly Speed (MPH)											
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl			
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.		
0:00												
1:00												
2:00												
3:00												
4:00												
5:00												
6:00	36	28	36	28	36	28	36	28	36	28		
7:00	36	28	36	28	36	28	36	28	36	28		
8:00	36	28	36	28	36	28	36	28	36	28		
9:00	36	28	36	28	36	28	36	28	36	28		
10:00	36	28	36	28	36	28	36	28	36	28		
11:00	36	28	36	28	36	28	36	28	36	28		
12:00	36	28	36	28	36	28	36	28	36	28		
13:00	36	28	36	28	36	28	36	28	36	28		
14:00	36	28	36	28	36	28	36	28	36	28		
15:00	36	28	36	28	36	28	35	27	35	27		
16:00	36	28	36	27	36	27	34	26	35	27		
17:00	36	28	36	27	36	27	34	26	35	27		
18:00	36	28	36	28	36	28	34	26	35	27		
19:00	36	28	36	28	36	28	35	27	36	27		
20:00	36	28	36	28	36	28	36	28	36	28		
21:00												
22:00												
23:00												
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT				

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT



Version 11.09

ENTRADA® - Environmental Traffic Data Output Sheet

Table 6 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Colvin Run Road, Route 743							Map Reference		Map provided		
From	Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4				
To	Route 7							Present Year 2011 ADT		4,500	No-build	
City/County	Fairfax							Interim Year 2020 ADT		5,000	5,000	
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		7,000	6,000	
Two-way												
Starting Time	Hourly Volume					Existing		Present % Truck				
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	2A-6T	3A+	Total		
0:00												
1:00												
2:00												
3:00												
4:00												
5:00												
6:00	275	306	306	429	367	6.12%	=	1.0%	0.8%	1.8%		
7:00	306	340	340	476	408	6.80%	=	1.0%	0.7%	1.7%		
8:00	295	328	328	459	393	6.56%	=	0.9%	0.6%	1.5%		
9:00	250	278	278	389	334	5.56%	=	1.3%	1.0%	2.3%		
10:00	209	232	232	325	278	4.64%	=	1.6%	1.4%	3.0%		
11:00	211	234	234	328	281	4.69%	=	1.6%	1.6%	3.2%		
12:00	226	251	251	352	302	5.03%	=	1.7%	1.5%	3.2%		
13:00	225	250	250	350	300	4.99%	=	1.5%	1.3%	2.8%		
14:00	249	276	276	387	332	5.53%	=	1.6%	1.2%	2.9%		
15:00	295	328	328	459	393	6.55%	=	1.3%	0.8%	2.1%		
16:00	321	357	357	500	429	7.14%	=	0.9%	0.5%	1.4%		
17:00	331	367	367	514	441	7.35%	=	0.4%	0.4%	0.9%		
18:00	311	346	346	484	415	6.91%	=	0.5%	0.4%	0.9%		
19:00	264	293	293	410	352	5.86%	=	0.4%	0.3%	0.7%		
20:00	177	197	197	276	236	3.94%	=	0.4%	0.3%	0.7%		
21:00												
22:00												
23:00												
Starting Time	Average Two-way Hourly Speed (MPH)											
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl			
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.		
0:00												
1:00												
2:00												
3:00												
4:00												
5:00												
6:00	36	28	35	27	35	27	34	26	35	27		
7:00	36	28	35	27	35	27	33	26	35	27		
8:00	36	28	36	28	36	28	35	27	35	27		
9:00	36	28	36	28	36	28	36	27	36	28		
10:00	36	28	36	28	36	28	36	28	36	28		
11:00	36	28	36	28	36	28	36	28	36	28		
12:00	36	28	36	28	36	28	36	28	36	28		
13:00	36	28	36	28	36	28	36	28	36	28		
14:00	36	28	36	28	36	28	36	28	36	28		
15:00	36	28	36	28	36	28	35	27	36	28		
16:00	36	28	36	28	36	28	35	27	35	27		
17:00	36	28	36	28	36	28	35	27	35	27		
18:00	36	28	36	28	36	28	35	27	35	27		
19:00	36	28	36	28	36	28	35	27	36	28		
20:00	36	28	36	28	36	28	36	28	36	28		
21:00												
22:00												
23:00												
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT				

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT

**ENTRADA® - Environmental Traffic Data Input Summary****Table 7 - Route 7 Widening**

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Facility	Beulah Road, route 702			Direction		N/S	Present Year		2011	# of hours
From	Route 7			Map Reference		Map provided	Interim Year		2020	15
To	The south			County	Fairfax		Design Year		2040	Version 11.09
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)									
	NB			SB			Weighted TWO-WAY			Weighted %T= [(NB Vol.*%T) + (SB Vol.*%T)] / 2-way Vol. T: Truck
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	1.0%	0.8%	1.8%	
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	1.0%	0.7%	1.7%	
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	0.9%	0.6%	1.5%	
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	1.3%	1.0%	2.3%	
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.6%	1.4%	3.0%	
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.6%	1.6%	3.2%	
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.5%	3.2%	
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.5%	1.3%	2.8%	
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.2%	2.9%	
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.3%	0.8%	2.1%	
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	0.9%	0.5%	1.4%	
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.4%	0.4%	0.9%	
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.5%	0.4%	0.9%	
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.4%	0.3%	0.7%	
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.4%	0.3%	0.7%	
21:00										
22:00										
23:00										
Starting Time	Directional Split, D-factor									
	NB					SB				
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	81%	81%	81%	81%	81%	19%	19%	19%	19%	19%
7:00	75%	75%	75%	75%	75%	25%	25%	25%	25%	25%
8:00	69%	69%	69%	69%	69%	31%	31%	31%	31%	31%
9:00	64%	64%	64%	64%	64%	36%	36%	36%	36%	36%
10:00	55%	55%	55%	55%	55%	45%	45%	45%	45%	45%
11:00	53%	53%	53%	53%	53%	47%	47%	47%	47%	47%
12:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%
13:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%
14:00	46%	46%	46%	46%	46%	54%	54%	54%	54%	54%
15:00	40%	40%	40%	40%	40%	60%	60%	60%	60%	60%
16:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%
17:00	39%	39%	39%	39%	39%	61%	61%	61%	61%	61%
18:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%
19:00	34%	34%	34%	34%	34%	66%	66%	66%	66%	66%
20:00	42%	42%	42%	42%	42%	58%	58%	58%	58%	58%
21:00										
22:00										
23:00										

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Table 7 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Beulah Road, route 702				Map Reference		Map provided	
From	Route 7				Unit Sys= US , BPR Eq with a= 1.0001 and b= 4			
To	The south				Present Year 2011 ADT			
City/County	Fairfax				Interim Year 2020 ADT			
Date	11/16/2011	Time Span	15 Hours		Design Year 2040 ADT			
					5,300		No-build	
					6,000		6,000	
					8,000		7,000	

Northbound

Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	261	296	296	394	345	6.12%	81%	0.7%	0.7%	1.4%
7:00	270	305	305	407	356	6.80%	75%	0.6%	0.7%	1.3%
8:00	239	270	270	360	315	6.56%	69%	0.3%	0.5%	0.8%
9:00	188	213	213	284	248	5.56%	64%	0.6%	0.8%	1.4%
10:00	136	154	154	205	180	4.64%	55%	1.0%	1.5%	2.5%
11:00	131	148	148	198	173	4.69%	53%	1.3%	1.5%	2.8%
12:00	130	147	147	197	172	5.03%	49%	1.7%	1.7%	3.4%
13:00	129	146	146	194	170	4.99%	49%	1.6%	1.6%	3.2%
14:00	136	154	154	205	179	5.53%	46%	1.6%	1.6%	3.2%
15:00	138	156	156	209	182	6.55%	40%	1.8%	1.1%	2.9%
16:00	141	160	160	213	187	7.14%	37%	1.4%	0.7%	2.1%
17:00	152	173	173	230	201	7.35%	39%	0.5%	0.7%	1.3%
18:00	135	153	153	204	179	6.91%	37%	0.6%	0.6%	1.2%
19:00	104	118	118	158	138	5.86%	34%	0.6%	0.6%	1.1%
20:00	87	98	98	131	115	3.94%	42%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										

Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	35	27	34	27	34	27	31	24	33	25
7:00	35	27	34	26	34	26	30	23	33	25
8:00	35	27	35	27	35	27	33	25	34	26
9:00	36	28	36	28	36	28	35	27	35	27
10:00	36	28	36	28	36	28	36	28	36	28
11:00	36	28	36	28	36	28	36	28	36	28
12:00	36	28	36	28	36	28	36	28	36	28
13:00	36	28	36	28	36	28	36	28	36	28
14:00	36	28	36	28	36	28	36	28	36	28
15:00	36	28	36	28	36	28	36	28	36	28
16:00	36	28	36	28	36	28	36	28	36	28
17:00	36	28	36	28	36	28	35	27	36	28
18:00	36	28	36	28	36	28	36	28	36	28
19:00	36	28	36	28	36	28	36	28	36	28
20:00	36	28	36	28	36	28	36	28	36	28
21:00										
22:00										
23:00										

* Shown when volume exceeds Max. Service Flow

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Table 7 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Beulah Road, route 702							Map Reference		Map provided		
From	Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4				
To	The south							Present Year 2011 ADT		5,300	No-build	
City/County	Fairfax							Interim Year 2020 ADT		6,000	6,000	
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		8,000	7,000	
Southbound												
Starting Time	Hourly Volume					Existing		Present % Truck				
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	Present	% Truck			
								2A-6T	3A+	Total		
0:00												
1:00												
2:00												
3:00												
4:00												
5:00												
6:00	63	72	72	95	84	6.12%	19%	2.4%	1.0%	3.4%		
7:00	91	103	103	137	120	6.80%	25%	2.2%	0.9%	3.1%		
8:00	109	123	123	164	144	6.56%	31%	2.1%	1.0%	3.1%		
9:00	107	121	121	161	141	5.56%	36%	2.4%	1.4%	3.8%		
10:00	110	124	124	166	145	4.64%	45%	2.4%	1.3%	3.6%		
11:00	118	133	133	177	155	4.69%	47%	1.8%	1.8%	3.6%		
12:00	136	154	154	205	180	5.03%	51%	1.7%	1.3%	3.0%		
13:00	136	154	154	205	180	4.99%	51%	1.4%	1.0%	2.4%		
14:00	157	178	178	237	207	5.53%	54%	1.7%	0.9%	2.6%		
15:00	209	237	237	315	276	6.55%	60%	1.1%	0.5%	1.6%		
16:00	237	269	269	358	313	7.14%	63%	0.7%	0.4%	1.0%		
17:00	237	268	268	358	313	7.35%	61%	0.4%	0.2%	0.6%		
18:00	231	262	262	349	305	6.91%	63%	0.4%	0.3%	0.7%		
19:00	206	234	234	312	273	5.86%	66%	0.3%	0.2%	0.5%		
20:00	122	138	138	184	161	3.94%	58%	0.4%	0.2%	0.6%		
21:00												
22:00												
23:00												
Starting Time	Hourly Speed (MPH)											
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl			
	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.		
0:00												
1:00												
2:00												
3:00												
4:00												
5:00												
6:00	36	28	36	28	36	28	36	28	36	28		
7:00	36	28	36	28	36	28	36	28	36	28		
8:00	36	28	36	28	36	28	36	28	36	28		
9:00	36	28	36	28	36	28	36	28	36	28		
10:00	36	28	36	28	36	28	36	28	36	28		
11:00	36	28	36	28	36	28	36	28	36	28		
12:00	36	28	36	28	36	28	36	28	36	28		
13:00	36	28	36	28	36	28	36	28	36	28		
14:00	36	28	36	28	36	28	35	27	36	28		
15:00	36	28	35	27	35	27	34	26	35	27		
16:00	35	27	35	27	35	27	33	25	34	26		
17:00	35	27	35	27	35	27	33	25	34	26		
18:00	36	27	35	27	35	27	33	25	34	26		
19:00	36	28	36	27	36	27	34	26	35	27		
20:00	36	28	36	28	36	28	36	28	36	28		
21:00												
22:00												
23:00												
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT				

* Shown when volume exceeds Max. Service Flow

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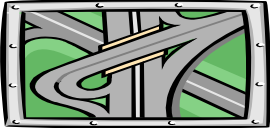
Table 7 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Beulah Road, route 702							Map Reference		Map provided					
From	Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4							
To	The south							Present Year 2011 ADT		5,300	No-build				
City/County	Fairfax							Interim Year 2020 ADT		6,000	6,000				
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		8,000	7,000				
Two-way															
Starting Time	Hourly Volume					Existing		Present % Truck							
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	2A-6T	3A+	Total					
0:00															
1:00															
2:00															
3:00															
4:00															
5:00															
6:00	324	367	367	490	429	6.12%	=	1.0%	0.8%	1.8%					
7:00	361	408	408	544	476	6.80%	=	1.0%	0.7%	1.7%					
8:00	348	393	393	525	459	6.56%	=	0.9%	0.6%	1.5%					
9:00	295	334	334	445	389	5.56%	=	1.3%	1.0%	2.3%					
10:00	246	278	278	371	325	4.64%	=	1.6%	1.4%	3.0%					
11:00	248	281	281	375	328	4.69%	=	1.6%	1.6%	3.2%					
12:00	266	302	302	402	352	5.03%	=	1.7%	1.5%	3.2%					
13:00	265	300	300	399	350	4.99%	=	1.5%	1.3%	2.8%					
14:00	293	332	332	442	387	5.53%	=	1.6%	1.2%	2.9%					
15:00	347	393	393	524	459	6.55%	=	1.3%	0.8%	2.1%					
16:00	379	429	429	571	500	7.14%	=	0.9%	0.5%	1.4%					
17:00	389	441	441	588	514	7.35%	=	0.4%	0.4%	0.9%					
18:00	366	415	415	553	484	6.91%	=	0.5%	0.4%	0.9%					
19:00	311	352	352	469	410	5.86%	=	0.4%	0.3%	0.7%					
20:00	209	236	236	315	276	3.94%	=	0.4%	0.3%	0.7%					
21:00															
22:00															
23:00															
Starting Time	Average Two-way Hourly Speed (MPH)														
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl						
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.					
0:00															
1:00															
2:00															
3:00															
4:00															
5:00															
6:00	35	27	35	27	35	27	32	25	34	26					
7:00	35	27	35	27	35	27	32	25	33	26					
8:00	36	28	35	27	35	27	34	26	35	27					
9:00	36	28	36	28	36	28	35	27	36	27					
10:00	36	28	36	28	36	28	36	28	36	28					
11:00	36	28	36	28	36	28	36	28	36	28					
12:00	36	28	36	28	36	28	36	28	36	28					
13:00	36	28	36	28	36	28	36	28	36	28					
14:00	36	28	36	28	36	28	35	27	36	28					
15:00	36	28	36	28	36	28	35	27	35	27					
16:00	36	28	35	27	35	27	34	26	35	27					
17:00	36	28	35	27	35	27	34	26	35	27					
18:00	36	28	35	27	35	27	34	26	35	27					
19:00	36	28	36	28	36	28	35	27	35	27					
20:00	36	28	36	28	36	28	36	28	36	28					
21:00															
22:00															
23:00															
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT							

* Shown when volume exceeds Max. Service Flow

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		ENTRADA© - Environmental Traffic Data Input Summary						
		Table 8S - Route 7 Widening						
		0007-029-128, P102, R202, C502, B610; UPC# 52328/616						
Facility	Towlston Road, Route 676		Direction		N/S	Present Year	2011	# of hours
From	Route 7		Map Reference		Map provided	Interim Year	2020	15
To	The south		County	Fairfax		Design Year	2040	Version 11.09
Traffic and Geometric Data								
Sys. Unit	E	Facility Length (Mi)		1.00	BPR a & b= 1 & 4		Terrain	Level
Input		Existing	Interim Bld	Interim Nbld	Design Bld	Design Nbld	Notes	
Two-way ADT		3,200	4,000	4,000	5,000	5,000	Additional inputs.....	
% Truck ADT		0%	0%	0%	0%	0%		
Adjusted ADT		Hourly	Percent	Truck	Is	Available		
Practical Capacity (phpl)		640	640	640	640	640		
Facility Type		Minor Art.	Minor Art.	Minor Art.	Minor Art.	Minor Art.		
Median Type		Undivided	Undivided	Undivided	Undivided	Undivided		
NB # of lanes		1	1	1	1	1		
SB # of lanes		1	1	1	1	1		
Outside shldr. width (ft)		0.00	0.00	0.00	0.00	0.00		
Inside shldr. width (ft)		0.00	0.00	0.00	0.00	0.00		
Lane Width (ft)		12.00	12.00	12.00	12.00	12.00		
Access/Intchg Density		5	5	5	5	5		
Number of Signals		0	0	0	0	0		
Signal Quality		-	-	-	-	-		
Cycle Length (sec.)		0	0	0	0	0		
Effective Green (sec.)		0	0	0	0	0	* Ideal FFS calculated using NCHRP-355 Report, PS> 50 mph, FFS=0.88*(PS/1.609)+22 , PS= 35-50 mph, FFS=0.79*(PS/1.609)+19 . PS< 35 mph, FFS=PS. Adjusted FFS= FFS - Facility Correction	
Posted Speed (mph)		35	35	35	35	35		
Ideal FFS (mph)		36	36	36	36	36		
Adjusted FFS (mph)		28	28	28	28	28		
Past, Present & Future Traffic Statistics								
Starting Time	Existing Hourly K-factor (Hourly Traffic/ADT) and Traffic Volume for 15 hours						NOTE: For more K-factors (V_h/V_{24}), see Lookup Tables. These tables (19-36) are extracted from NCHRP Report # 187.	
	Existing	Ex. K-factor	Interim Bld	Interim Nbld	Design Bld	Design Nbld		
0:00								
1:00								
2:00								
3:00								
4:00								
5:00								
6:00	0	6.1%	245	245	306	306		
7:00	0	6.8%	272	272	340	340		
8:00	0	6.6%	262	262	328	328		
9:00	0	5.6%	222	222	278	278		
10:00	0	4.6%	186	186	232	232		
11:00	0	4.7%	188	188	234	234		
12:00	0	5.0%	201	201	251	251		
13:00	0	5.0%	200	200	250	250		
14:00	0	5.5%	221	221	276	276		
15:00	0	6.6%	262	262	328	328		
16:00	0	7.1%	286	286	357	357		
17:00	0	7.3%	294	294	367	367		
18:00	0	6.9%	277	277	346	346		
19:00	0	5.9%	235	235	293	293		
20:00	0	3.9%	157	157	197	197		
21:00								
22:00								
23:00								

**ENTRADA® - Environmental Traffic Data Input Summary****Table 8S - Route 7 Widening**

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Facility	Towlston Road, Route 676			Direction		N/S	Present Year		2011	# of hours	
From	Route 7			Map Reference		Map provided	Interim Year		2020	15	
To	The south			County	Fairfax		Design Year		2040	Version 11.09	
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)										
	NB			SB			Weighted TWO-WAY			Weighted %T= [(NB Vol.*%T) + (SB Vol.*%T)] / 2-way Vol. T: Truck	
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck		
0:00											
1:00											
2:00											
3:00											
4:00											
5:00											
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	1.0%	0.8%	1.8%		
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	1.0%	0.7%	1.7%		
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	0.9%	0.6%	1.5%		
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	1.3%	1.0%	2.3%		
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.6%	1.4%	3.0%		
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.6%	1.6%	3.2%		
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.5%	3.2%		
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.5%	1.3%	2.8%		
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.2%	2.9%		
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.3%	0.8%	2.1%		
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	0.9%	0.5%	1.4%		
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.4%	0.4%	0.9%		
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.5%	0.4%	0.9%		
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.4%	0.3%	0.7%		
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.4%	0.3%	0.7%		
21:00											
22:00											
23:00											
Starting Time	Directional Split, D-factor										
	NB					SB					
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	
0:00											
1:00											
2:00											
3:00											
4:00											
5:00											
6:00	81%	81%	81%	81%	81%	19%	19%	19%	19%	19%	
7:00	75%	75%	75%	75%	75%	25%	25%	25%	25%	25%	
8:00	69%	69%	69%	69%	69%	31%	31%	31%	31%	31%	
9:00	64%	64%	64%	64%	64%	36%	36%	36%	36%	36%	
10:00	55%	55%	55%	55%	55%	45%	45%	45%	45%	45%	
11:00	53%	53%	53%	53%	53%	47%	47%	47%	47%	47%	
12:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%	
13:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%	
14:00	46%	46%	46%	46%	46%	54%	54%	54%	54%	54%	
15:00	40%	40%	40%	40%	40%	60%	60%	60%	60%	60%	
16:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%	
17:00	39%	39%	39%	39%	39%	61%	61%	61%	61%	61%	
18:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%	
19:00	34%	34%	34%	34%	34%	66%	66%	66%	66%	66%	
20:00	42%	42%	42%	42%	42%	58%	58%	58%	58%	58%	
21:00											
22:00											
23:00											

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Question, Problem & Comments, Please e-mail @ ed.azimi@vdot.virginia.gov



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Table 8S - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Towlston Road, Route 676				Map Reference		Map provided	
From	Route 7				Unit Sys= US , BPR Eq with a= 1.0001 and b= 4			
To	The south				Present Year 2011 ADT			
City/County	Fairfax				Interim Year 2020 ADT			
Date	11/16/2011	Time Span	15 Hours		Design Year 2040 ADT			
					3,200		No-build	
					4,000		4,000	
					5,000		5,000	

Northbound

Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.			
								2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	158	197	197	246	246	6.12%	81%	0.7%	0.7%	1.4%
7:00	163	204	204	255	255	6.80%	75%	0.6%	0.7%	1.3%
8:00	144	180	180	225	225	6.56%	69%	0.3%	0.5%	0.8%
9:00	114	142	142	177	177	5.56%	64%	0.6%	0.8%	1.4%
10:00	82	103	103	128	128	4.64%	55%	1.0%	1.5%	2.5%
11:00	79	99	99	123	123	4.69%	53%	1.3%	1.5%	2.8%
12:00	79	98	98	123	123	5.03%	49%	1.7%	1.7%	3.4%
13:00	78	97	97	121	121	4.99%	49%	1.6%	1.6%	3.2%
14:00	82	103	103	128	128	5.53%	46%	1.6%	1.6%	3.2%
15:00	83	104	104	130	130	6.55%	40%	1.8%	1.1%	2.9%
16:00	85	107	107	133	133	7.14%	37%	1.4%	0.7%	2.1%
17:00	92	115	115	144	144	7.35%	39%	0.5%	0.7%	1.3%
18:00	82	102	102	128	128	6.91%	37%	0.6%	0.6%	1.2%
19:00	63	79	79	98	98	5.86%	34%	0.6%	0.6%	1.1%
20:00	52	66	66	82	82	3.94%	42%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										

Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	36	28	36	28	36	28	35	27	35	27
7:00	36	28	36	28	36	28	35	27	35	27
8:00	36	28	36	28	36	28	36	27	36	27
9:00	36	28	36	28	36	28	36	28	36	28
10:00	36	28	36	28	36	28	36	28	36	28
11:00	36	28	36	28	36	28	36	28	36	28
12:00	36	28	36	28	36	28	36	28	36	28
13:00	36	28	36	28	36	28	36	28	36	28
14:00	36	28	36	28	36	28	36	28	36	28
15:00	36	28	36	28	36	28	36	28	36	28
16:00	36	28	36	28	36	28	36	28	36	28
17:00	36	28	36	28	36	28	36	28	36	28
18:00	36	28	36	28	36	28	36	28	36	28
19:00	36	28	36	28	36	28	36	28	36	28
20:00	36	28	36	28	36	28	36	28	36	28
21:00										
22:00										
23:00										

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT



Version 11.09

ENTRADA® - Environmental Traffic Data Output Sheet

Table 8S - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Towlston Road, Route 676							Map Reference		Map provided		
From	Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4				
To	The south							Present Year 2011 ADT		3,200	No-build	
City/County	Fairfax							Interim Year 2020 ADT		4,000	4,000	
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		5,000	5,000	
Southbound												
Starting Time	Hourly Volume					Existing		Present % Truck				
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	Present	% Truck			
								2A-6T	3A+	Total		
0:00												
1:00												
2:00												
3:00												
4:00												
5:00												
6:00	38	48	48	60	60	6.12%	19%	2.4%	1.0%	3.4%		
7:00	55	69	69	86	86	6.80%	25%	2.2%	0.9%	3.1%		
8:00	66	82	82	103	103	6.56%	31%	2.1%	1.0%	3.1%		
9:00	64	80	80	101	101	5.56%	36%	2.4%	1.4%	3.8%		
10:00	66	83	83	104	104	4.64%	45%	2.4%	1.3%	3.6%		
11:00	71	89	89	111	111	4.69%	47%	1.8%	1.8%	3.6%		
12:00	82	103	103	128	128	5.03%	51%	1.7%	1.3%	3.0%		
13:00	82	103	103	128	128	4.99%	51%	1.4%	1.0%	2.4%		
14:00	95	118	118	148	148	5.53%	54%	1.7%	0.9%	2.6%		
15:00	126	158	158	197	197	6.55%	60%	1.1%	0.5%	1.6%		
16:00	143	179	179	224	224	7.14%	63%	0.7%	0.4%	1.0%		
17:00	143	179	179	224	224	7.35%	61%	0.4%	0.2%	0.6%		
18:00	140	174	174	218	218	6.91%	63%	0.4%	0.3%	0.7%		
19:00	125	156	156	195	195	5.86%	66%	0.3%	0.2%	0.5%		
20:00	74	92	92	115	115	3.94%	58%	0.4%	0.2%	0.6%		
21:00												
22:00												
23:00												
Starting Time	Hourly Speed (MPH)											
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl			
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.		
0:00												
1:00												
2:00												
3:00												
4:00												
5:00												
6:00	36	28	36	28	36	28	36	28	36	28		
7:00	36	28	36	28	36	28	36	28	36	28		
8:00	36	28	36	28	36	28	36	28	36	28		
9:00	36	28	36	28	36	28	36	28	36	28		
10:00	36	28	36	28	36	28	36	28	36	28		
11:00	36	28	36	28	36	28	36	28	36	28		
12:00	36	28	36	28	36	28	36	28	36	28		
13:00	36	28	36	28	36	28	36	28	36	28		
14:00	36	28	36	28	36	28	36	28	36	28		
15:00	36	28	36	28	36	28	36	28	36	28		
16:00	36	28	36	28	36	28	36	27	36	27		
17:00	36	28	36	28	36	28	36	27	36	27		
18:00	36	28	36	28	36	28	36	28	36	28		
19:00	36	28	36	28	36	28	36	28	36	28		
20:00	36	28	36	28	36	28	36	28	36	28		
21:00												
22:00												
23:00												
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT				

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT



Version 11.09

ENTRADA© - Environmental Traffic Data Output Sheet

Table 8S - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Towlston Road, Route 676					Map Reference		Map provided			
From	Route 7					Unit Sys= US , BPR Eq with a= 1.0001 and b= 4					
To	The south					Present Year 2011 ADT		3,200		No-build	
City/County	Fairfax					Interim Year 2020 ADT		4,000		4,000	
Date	11/16/2011	Time Span	15 Hours			Design Year 2040 ADT		5,000		5,000	
Two-way											
Starting Time	Hourly Volume					Existing		Present % Truck			
	Existing	Interim Bld	Interim Nbld	Design Bld	Design Nbld	% ADT	Dir. Dist.				
								2A-6T	3A+	Total	
0:00											
1:00											
2:00											
3:00											
4:00											
5:00											
6:00	196	245	245	306	306	6.12%	=	1.0%	0.8%	1.8%	
7:00	218	272	272	340	340	6.80%	=	1.0%	0.7%	1.7%	
8:00	210	262	262	328	328	6.56%	=	0.9%	0.6%	1.5%	
9:00	178	222	222	278	278	5.56%	=	1.3%	1.0%	2.3%	
10:00	148	186	186	232	232	4.64%	=	1.6%	1.4%	3.0%	
11:00	150	188	188	234	234	4.69%	=	1.6%	1.6%	3.2%	
12:00	161	201	201	251	251	5.03%	=	1.7%	1.5%	3.2%	
13:00	160	200	200	250	250	4.99%	=	1.5%	1.3%	2.8%	
14:00	177	221	221	276	276	5.53%	=	1.6%	1.2%	2.9%	
15:00	210	262	262	328	328	6.55%	=	1.3%	0.8%	2.1%	
16:00	229	286	286	357	357	7.14%	=	0.9%	0.5%	1.4%	
17:00	235	294	294	367	367	7.35%	=	0.4%	0.4%	0.9%	
18:00	221	277	277	346	346	6.91%	=	0.5%	0.4%	0.9%	
19:00	188	235	235	293	293	5.86%	=	0.4%	0.3%	0.7%	
20:00	126	157	157	197	197	3.94%	=	0.4%	0.3%	0.7%	
21:00											
22:00											
23:00											
Starting Time	Average Two-way Hourly Speed (MPH)										
	Existing		Interim Bld		Interim Nbld		Design Bld		Design Nbld		
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	
0:00											
1:00											
2:00											
3:00											
4:00											
5:00											
6:00	36	28	36	28	36	28	35	27	35	27	
7:00	36	28	36	28	36	28	35	27	35	27	
8:00	36	28	36	28	36	28	36	28	36	28	
9:00	36	28	36	28	36	28	36	28	36	28	
10:00	36	28	36	28	36	28	36	28	36	28	
11:00	36	28	36	28	36	28	36	28	36	28	
12:00	36	28	36	28	36	28	36	28	36	28	
13:00	36	28	36	28	36	28	36	28	36	28	
14:00	36	28	36	28	36	28	36	28	36	28	
15:00	36	28	36	28	36	28	36	28	36	28	
16:00	36	28	36	28	36	28	36	28	36	28	
17:00	36	28	36	28	36	28	36	28	36	28	
18:00	36	28	36	28	36	28	36	28	36	28	
19:00	36	28	36	28	36	28	36	28	36	28	
20:00	36	28	36	28	36	28	36	28	36	28	
21:00											
22:00											
23:00											
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT			

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT

**ENTRADA® - Environmental Traffic Data Input Summary****Table 8N - Route 7 Widening**

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Facility	Towlston Road, Route 676			Direction		N/S	Present Year		2011	# of hours	
From	Route 7			Map Reference		Map provided	Interim Year		2020	15	
To	The north			County	Fairfax		Design Year		2040	Version 11.09	
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)										
	NB			SB			Weighted TWO-WAY			Weighted %T= [(NB Vol.*%T) + (SB Vol.*%T)] / 2-way Vol. T: Truck	
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck		
0:00											
1:00											
2:00											
3:00											
4:00											
5:00											
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	1.0%	0.8%	1.8%		
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	1.0%	0.7%	1.7%		
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	0.9%	0.6%	1.5%		
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	1.3%	1.0%	2.3%		
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.6%	1.4%	3.0%		
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.6%	1.6%	3.2%		
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.5%	3.2%		
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.5%	1.3%	2.8%		
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.2%	2.9%		
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.3%	0.8%	2.1%		
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	0.9%	0.5%	1.4%		
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.4%	0.4%	0.9%		
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.5%	0.4%	0.9%		
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.4%	0.3%	0.7%		
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.4%	0.3%	0.7%		
21:00											
22:00											
23:00											
Starting Time	Directional Split, D-factor										
	NB					SB					
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	
0:00											
1:00											
2:00											
3:00											
4:00											
5:00											
6:00	81%	81%	81%	81%	81%	19%	19%	19%	19%	19%	
7:00	75%	75%	75%	75%	75%	25%	25%	25%	25%	25%	
8:00	69%	69%	69%	69%	69%	31%	31%	31%	31%	31%	
9:00	64%	64%	64%	64%	64%	36%	36%	36%	36%	36%	
10:00	55%	55%	55%	55%	55%	45%	45%	45%	45%	45%	
11:00	53%	53%	53%	53%	53%	47%	47%	47%	47%	47%	
12:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%	
13:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%	
14:00	46%	46%	46%	46%	46%	54%	54%	54%	54%	54%	
15:00	40%	40%	40%	40%	40%	60%	60%	60%	60%	60%	
16:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%	
17:00	39%	39%	39%	39%	39%	61%	61%	61%	61%	61%	
18:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%	
19:00	34%	34%	34%	34%	34%	66%	66%	66%	66%	66%	
20:00	42%	42%	42%	42%	42%	58%	58%	58%	58%	58%	
21:00											
22:00											
23:00											

ENTRADA program is developed by Ed Azimi @VDOT-NOVA/TP

Question, Problem & Comments, Please e-mail @ ed.azimi@vdot.virginia.gov



ENTRADA® - Environmental Traffic Data Output Sheet

Version 11.09

Table 8N - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Towlston Road, Route 676				Map Reference		Map provided	
From	Route 7				Unit Sys= US , BPR Eq with a= 1.0001 and b= 4			
To	The north				Present Year 2011 ADT			
City/County	Fairfax				Interim Year 2020 ADT			
Date	11/16/2011	Time Span	15 Hours		Design Year 2040 ADT			
					4,000		No-build	
					5,000		5,000	
					6,000		5,000	

Northbound

Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nblnd	Design Bld	Design Nblnd	% ADT	Dir. Dist.			
								2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	197	246	246	296	246	6.12%	81%	0.7%	0.7%	1.4%
7:00	204	255	255	305	255	6.80%	75%	0.6%	0.7%	1.3%
8:00	180	225	225	270	225	6.56%	69%	0.3%	0.5%	0.8%
9:00	142	177	177	213	177	5.56%	64%	0.6%	0.8%	1.4%
10:00	103	128	128	154	128	4.64%	55%	1.0%	1.5%	2.5%
11:00	99	123	123	148	123	4.69%	53%	1.3%	1.5%	2.8%
12:00	98	123	123	147	123	5.03%	49%	1.7%	1.7%	3.4%
13:00	97	121	121	146	121	4.99%	49%	1.6%	1.6%	3.2%
14:00	103	128	128	154	128	5.53%	46%	1.6%	1.6%	3.2%
15:00	104	130	130	156	130	6.55%	40%	1.8%	1.1%	2.9%
16:00	107	133	133	160	133	7.14%	37%	1.4%	0.7%	2.1%
17:00	115	144	144	173	144	7.35%	39%	0.5%	0.7%	1.3%
18:00	102	128	128	153	128	6.91%	37%	0.6%	0.6%	1.2%
19:00	79	98	98	118	98	5.86%	34%	0.6%	0.6%	1.1%
20:00	66	82	82	98	82	3.94%	42%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										

Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nblnd		Design Bld		Design Nblnd	
	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	36	28	35	27	35	27	34	27	35	27
7:00	36	28	35	27	35	27	34	26	35	27
8:00	36	28	36	27	36	27	35	27	36	27
9:00	36	28	36	28	36	28	36	28	36	28
10:00	36	28	36	28	36	28	36	28	36	28
11:00	36	28	36	28	36	28	36	28	36	28
12:00	36	28	36	28	36	28	36	28	36	28
13:00	36	28	36	28	36	28	36	28	36	28
14:00	36	28	36	28	36	28	36	28	36	28
15:00	36	28	36	28	36	28	36	28	36	28
16:00	36	28	36	28	36	28	36	28	36	28
17:00	36	28	36	28	36	28	36	28	36	28
18:00	36	28	36	28	36	28	36	28	36	28
19:00	36	28	36	28	36	28	36	28	36	28
20:00	36	28	36	28	36	28	36	28	36	28
21:00										
22:00										
23:00										

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT



ENTRADA® - Environmental Traffic Data Output Sheet

Version 11.09

Table 8N - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Towlston Road, Route 676							Map Reference		Map provided			
From	Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4					
To	The north							Present Year 2011 ADT		4,000		No-build	
City/County	Fairfax							Interim Year 2020 ADT		5,000		5,000	
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		6,000		5,000	
Southbound													
Starting Time	Hourly Volume					Existing		Present % Truck					
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	Present	% Truck				
								2A-6T	3A+	Total			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	48	60	60	72	60	6.12%	19%	2.4%	1.0%	3.4%			
7:00	69	86	86	103	86	6.80%	25%	2.2%	0.9%	3.1%			
8:00	82	103	103	123	103	6.56%	31%	2.1%	1.0%	3.1%			
9:00	80	101	101	121	101	5.56%	36%	2.4%	1.4%	3.8%			
10:00	83	104	104	124	104	4.64%	45%	2.4%	1.3%	3.6%			
11:00	89	111	111	133	111	4.69%	47%	1.8%	1.8%	3.6%			
12:00	103	128	128	154	128	5.03%	51%	1.7%	1.3%	3.0%			
13:00	103	128	128	154	128	4.99%	51%	1.4%	1.0%	2.4%			
14:00	118	148	148	178	148	5.53%	54%	1.7%	0.9%	2.6%			
15:00	158	197	197	237	197	6.55%	60%	1.1%	0.5%	1.6%			
16:00	179	224	224	269	224	7.14%	63%	0.7%	0.4%	1.0%			
17:00	179	224	224	268	224	7.35%	61%	0.4%	0.2%	0.6%			
18:00	174	218	218	262	218	6.91%	63%	0.4%	0.3%	0.7%			
19:00	156	195	195	234	195	5.86%	66%	0.3%	0.2%	0.5%			
20:00	92	115	115	138	115	3.94%	58%	0.4%	0.2%	0.6%			
21:00													
22:00													
23:00													
Starting Time	Hourly Speed (MPH)												
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl				
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	36	28	36	28	36	28	36	28	36	28			
7:00	36	28	36	28	36	28	36	28	36	28			
8:00	36	28	36	28	36	28	36	28	36	28			
9:00	36	28	36	28	36	28	36	28	36	28			
10:00	36	28	36	28	36	28	36	28	36	28			
11:00	36	28	36	28	36	28	36	28	36	28			
12:00	36	28	36	28	36	28	36	28	36	28			
13:00	36	28	36	28	36	28	36	28	36	28			
14:00	36	28	36	28	36	28	36	28	36	28			
15:00	36	28	36	28	36	28	35	27	36	28			
16:00	36	28	36	27	36	27	35	27	36	27			
17:00	36	28	36	27	36	27	35	27	36	27			
18:00	36	28	36	28	36	28	35	27	36	28			
19:00	36	28	36	28	36	28	36	27	36	28			
20:00	36	28	36	28	36	28	36	28	36	28			
21:00													
22:00													
23:00													
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT					

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT

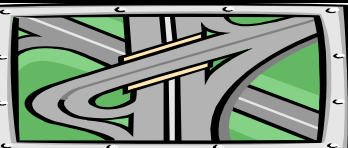


Version 11.09

ENTRADA® - Environmental Traffic Data Output Sheet

Table 8N - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Towlston Road, Route 676							Map Reference		Map provided				
From	Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4						
To	The north							Present Year 2011 ADT	4,000	No-build				
City/County	Fairfax							Interim Year 2020 ADT	5,000	5,000				
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT	6,000	5,000				
Two-way														
Starting Time	Hourly Volume					Existing		Present % Truck						
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	2A-6T	3A+	Total				
0:00														
1:00														
2:00														
3:00														
4:00														
5:00														
6:00	245	306	306	367	306	6.12%	=	1.0%	0.8%	1.8%				
7:00	272	340	340	408	340	6.80%	=	1.0%	0.7%	1.7%				
8:00	262	328	328	393	328	6.56%	=	0.9%	0.6%	1.5%				
9:00	222	278	278	334	278	5.56%	=	1.3%	1.0%	2.3%				
10:00	186	232	232	278	232	4.64%	=	1.6%	1.4%	3.0%				
11:00	188	234	234	281	234	4.69%	=	1.6%	1.6%	3.2%				
12:00	201	251	251	302	251	5.03%	=	1.7%	1.5%	3.2%				
13:00	200	250	250	300	250	4.99%	=	1.5%	1.3%	2.8%				
14:00	221	276	276	332	276	5.53%	=	1.6%	1.2%	2.9%				
15:00	262	328	328	393	328	6.55%	=	1.3%	0.8%	2.1%				
16:00	286	357	357	429	357	7.14%	=	0.9%	0.5%	1.4%				
17:00	294	367	367	441	367	7.35%	=	0.4%	0.4%	0.9%				
18:00	277	346	346	415	346	6.91%	=	0.5%	0.4%	0.9%				
19:00	235	293	293	352	293	5.86%	=	0.4%	0.3%	0.7%				
20:00	157	197	197	236	197	3.94%	=	0.4%	0.3%	0.7%				
21:00														
22:00														
23:00														
Starting Time	Average Two-way Hourly Speed (MPH)													
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl					
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.				
0:00														
1:00														
2:00														
3:00														
4:00														
5:00														
6:00	36	28	35	27	35	27	35	27	35	27				
7:00	36	28	35	27	35	27	35	27	35	27				
8:00	36	28	36	28	36	28	35	27	36	28				
9:00	36	28	36	28	36	28	36	28	36	28				
10:00	36	28	36	28	36	28	36	28	36	28				
11:00	36	28	36	28	36	28	36	28	36	28				
12:00	36	28	36	28	36	28	36	28	36	28				
13:00	36	28	36	28	36	28	36	28	36	28				
14:00	36	28	36	28	36	28	36	28	36	28				
15:00	36	28	36	28	36	28	36	28	36	28				
16:00	36	28	36	28	36	28	35	27	36	28				
17:00	36	28	36	28	36	28	35	27	36	28				
18:00	36	28	36	28	36	28	35	27	36	28				
19:00	36	28	36	28	36	28	36	28	36	28				
20:00	36	28	36	28	36	28	36	28	36	28				
21:00														
22:00														
23:00														
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT						

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT

**ENTRADA® - Environmental Traffic Data Input Summary****Table 9 - Route 7 Widening**

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Facility	Lewinsville Road, Route 694			Direction		N/S	Present Year		2011	# of hours
From	Route 7			Map Reference		Map provided	Interim Year		2020	15
To	The north			County	Fairfax		Design Year		2040	Version 11.09
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)									
	NB			SB			Weighted TWO-WAY			Weighted %T= [(NB Vol.*%T) + (SB Vol.*%T)] / 2-way Vol. T: Truck
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	1.0%	0.8%	1.8%	
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	1.0%	0.7%	1.7%	
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	0.9%	0.6%	1.5%	
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	1.3%	1.0%	2.3%	
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.6%	1.4%	3.0%	
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.6%	1.6%	3.2%	
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.5%	3.2%	
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.5%	1.3%	2.8%	
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.2%	2.9%	
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.3%	0.8%	2.1%	
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	0.9%	0.5%	1.4%	
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.4%	0.4%	0.9%	
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.5%	0.4%	0.9%	
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.4%	0.3%	0.7%	
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.4%	0.3%	0.7%	
21:00										
22:00										
23:00										
Starting Time	Directional Split, D-factor									
	NB					SB				
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	81%	81%	81%	81%	81%	19%	19%	19%	19%	19%
7:00	75%	75%	75%	75%	75%	25%	25%	25%	25%	25%
8:00	69%	69%	69%	69%	69%	31%	31%	31%	31%	31%
9:00	64%	64%	64%	64%	64%	36%	36%	36%	36%	36%
10:00	55%	55%	55%	55%	55%	45%	45%	45%	45%	45%
11:00	53%	53%	53%	53%	53%	47%	47%	47%	47%	47%
12:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%
13:00	49%	49%	49%	49%	49%	51%	51%	51%	51%	51%
14:00	46%	46%	46%	46%	46%	54%	54%	54%	54%	54%
15:00	40%	40%	40%	40%	40%	60%	60%	60%	60%	60%
16:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%
17:00	39%	39%	39%	39%	39%	61%	61%	61%	61%	61%
18:00	37%	37%	37%	37%	37%	63%	63%	63%	63%	63%
19:00	34%	34%	34%	34%	34%	66%	66%	66%	66%	66%
20:00	42%	42%	42%	42%	42%	58%	58%	58%	58%	58%
21:00										
22:00										
23:00										

ENTRADA program is developed by Ed Azimi @VDOT-NOVA/TP

Question, Problem & Comments, Please e-mail @ ed.azimi@vdot.virginia.gov



ENTRADA® - Environmental Traffic Data Output Sheet

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Table 9 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Lewinsville Road, Route 694				Map Reference		Map provided	
From	Route 7				Unit Sys= US , BPR Eq with a= 1.0001 and b= 4			
To	The north				Present Year 2011 ADT			
City/County	Fairfax				Interim Year 2020 ADT			
Date	11/16/2011	Time Span	15 Hours		Design Year 2040 ADT			
					9,400		No-build	
					11,000		11,000	
					15,000		14,000	

Northbound

Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nblnd	Design Bld	Design Nblnd	% ADT	Dir. Dist.			
								2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	463	542	542	739	690	6.12%	81%	0.7%	0.7%	1.4%
7:00	479	560	560	764	713	6.80%	75%	0.6%	0.7%	1.3%
8:00	423	496	496	676	631	6.56%	69%	0.3%	0.5%	0.8%
9:00	333	390	390	532	497	5.56%	64%	0.6%	0.8%	1.4%
10:00	241	282	282	385	359	4.64%	55%	1.0%	1.5%	2.5%
11:00	232	272	272	370	346	4.69%	53%	1.3%	1.5%	2.8%
12:00	231	270	270	369	344	5.03%	49%	1.7%	1.7%	3.4%
13:00	228	267	267	364	340	4.99%	49%	1.6%	1.6%	3.2%
14:00	241	282	282	384	359	5.53%	46%	1.6%	1.6%	3.2%
15:00	245	287	287	391	365	6.55%	40%	1.8%	1.1%	2.9%
16:00	251	293	293	400	373	7.14%	37%	1.4%	0.7%	2.1%
17:00	270	316	316	431	403	7.35%	39%	0.5%	0.7%	1.3%
18:00	240	281	281	383	357	6.91%	37%	0.6%	0.6%	1.2%
19:00	185	217	217	295	276	5.86%	34%	0.6%	0.6%	1.1%
20:00	154	180	180	246	229	3.94%	42%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										

Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nblnd		Design Bld		Design Nblnd	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	27	21	23	17	23	17	12	9	14	11
7:00	27	20	22	17	22	17	11	8	13	10
8:00	30	23	26	20	26	20	15	12	18	14
9:00	33	26	31	24	31	24	23	18	25	20
10:00	35	27	34	27	34	27	31	24	32	25
11:00	35	27	35	27	35	27	31	24	32	25
12:00	35	27	35	27	35	27	31	24	32	25
13:00	35	27	35	27	35	27	31	24	32	25
14:00	35	27	34	26	34	26	30	24	32	24
15:00	35	27	34	26	34	26	30	23	32	24
16:00	35	27	34	26	34	26	30	23	32	24
17:00	35	27	34	26	34	26	29	23	31	24
18:00	35	27	35	27	35	27	32	24	33	25
19:00	36	28	36	28	36	28	34	27	35	27
20:00	36	28	36	28	36	28	35	27	36	27
21:00										
22:00										
23:00										

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT



Version 11.09

ENTRADA® - Environmental Traffic Data Output Sheet

Table 9 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Lewinsville Road, Route 694							Map Reference		Map provided			
From	Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4					
To	The north							Present Year 2011 ADT		9,400		No-build	
City/County	Fairfax							Interim Year 2020 ADT		11,000		11,000	
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		15,000		14,000	
Southbound													
Starting Time	Hourly Volume					Existing		Present % Truck					
	Existing	Interim Bld	Interim Nbld	Design Bld	Design Nbld	% ADT	Dir. Dist.						
								2A-6T	3A+	Total			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	112	131	131	179	167	6.12%	19%	2.4%	1.0%	3.4%			
7:00	161	188	188	257	240	6.80%	25%	2.2%	0.9%	3.1%			
8:00	193	226	226	308	287	6.56%	31%	2.1%	1.0%	3.1%			
9:00	189	221	221	302	282	5.56%	36%	2.4%	1.4%	3.8%			
10:00	195	228	228	311	290	4.64%	45%	2.4%	1.3%	3.6%			
11:00	209	244	244	333	311	4.69%	47%	1.8%	1.8%	3.6%			
12:00	241	283	283	385	360	5.03%	51%	1.7%	1.3%	3.0%			
13:00	241	282	282	385	359	4.99%	51%	1.4%	1.0%	2.4%			
14:00	278	326	326	444	415	5.53%	54%	1.7%	0.9%	2.6%			
15:00	371	434	434	592	552	6.55%	60%	1.1%	0.5%	1.6%			
16:00	421	493	493	672	627	7.14%	63%	0.7%	0.4%	1.0%			
17:00	420	492	492	671	626	7.35%	61%	0.4%	0.2%	0.6%			
18:00	410	480	480	654	611	6.91%	63%	0.4%	0.3%	0.7%			
19:00	366	428	428	584	545	5.86%	66%	0.3%	0.2%	0.5%			
20:00	216	253	253	345	322	3.94%	58%	0.4%	0.2%	0.6%			
21:00													
22:00													
23:00													
Starting Time	Hourly Speed (MPH)												
	Existing		Interim Bld		Interim Nbld		Design Bld		Design Nbld				
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	36	28	36	28	36	28	36	28	36	28			
7:00	36	28	36	28	36	28	35	27	35	27			
8:00	36	28	35	27	35	27	34	26	34	26			
9:00	36	28	35	27	35	27	34	26	34	26			
10:00	36	28	35	27	35	27	33	26	34	26			
11:00	36	27	35	27	35	27	33	25	33	26			
12:00	35	27	34	27	34	27	31	24	32	24			
13:00	35	27	34	27	34	27	31	24	32	25			
14:00	35	27	33	26	33	26	28	21	29	23			
15:00	32	25	29	22	29	22	19	15	22	17			
16:00	30	23	26	20	26	20	15	12	18	14			
17:00	30	23	26	20	26	20	16	12	18	14			
18:00	31	24	27	21	27	21	17	13	19	15			
19:00	33	25	30	23	30	23	21	16	23	18			
20:00	36	28	35	27	35	27	33	26	34	26			
21:00													
22:00													
23:00													
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT					

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT



Version 11.09

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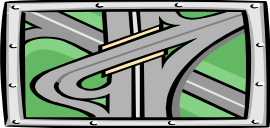
Table 9 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Lewinsville Road, Route 694							Map Reference		Map provided					
From	Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4							
To	The north							Present Year 2011 ADT		9,400	No-build				
City/County	Fairfax							Interim Year 2020 ADT		11,000	11,000				
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		15,000	14,000				
Two-way															
Starting Time	Hourly Volume					Existing		Present % Truck							
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	2A-6T	3A+	Total					
0:00															
1:00															
2:00															
3:00															
4:00															
5:00															
6:00	575	673	673	918	857	6.12%	=	1.0%	0.8%	1.8%					
7:00	640	748	748	1,021	953	6.80%	=	1.0%	0.7%	1.7%					
8:00	616	721	721	984	918	6.56%	=	0.9%	0.6%	1.5%					
9:00	523	612	612	834	778	5.56%	=	1.3%	1.0%	2.3%					
10:00	436	510	510	696	649	4.64%	=	1.6%	1.4%	3.0%					
11:00	441	516	516	703	656	4.69%	=	1.6%	1.6%	3.2%					
12:00	473	553	553	754	704	5.03%	=	1.7%	1.5%	3.2%					
13:00	469	549	549	749	699	4.99%	=	1.5%	1.3%	2.8%					
14:00	519	608	608	829	774	5.53%	=	1.6%	1.2%	2.9%					
15:00	616	721	721	983	917	6.55%	=	1.3%	0.8%	2.1%					
16:00	671	786	786	1,071	1,000	7.14%	=	0.9%	0.5%	1.4%					
17:00	690	808	808	1,102	1,028	7.35%	=	0.4%	0.4%	0.9%					
18:00	650	760	760	1,037	968	6.91%	=	0.5%	0.4%	0.9%					
19:00	551	645	645	880	821	5.86%	=	0.4%	0.3%	0.7%					
20:00	370	433	433	590	551	3.94%	=	0.4%	0.3%	0.7%					
21:00															
22:00															
23:00															
Starting Time	Average Two-way Hourly Speed (MPH)														
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl						
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.					
0:00															
1:00															
2:00															
3:00															
4:00															
5:00															
6:00	29	22	25	19	25	19	16	13	18	14					
7:00	29	22	25	19	25	19	17	13	19	14					
8:00	32	24	29	22	29	22	21	16	23	18					
9:00	34	26	33	25	33	25	27	21	29	22					
10:00	35	27	35	27	35	27	32	25	33	25					
11:00	35	27	35	27	35	27	32	25	33	25					
12:00	35	27	34	27	34	27	31	24	32	25					
13:00	35	27	35	27	35	27	31	24	32	25					
14:00	35	27	34	26	34	26	29	22	30	23					
15:00	33	26	31	24	31	24	24	18	26	20					
16:00	32	25	29	22	29	22	21	16	23	18					
17:00	32	25	29	23	29	23	21	16	23	18					
18:00	32	25	30	23	30	23	22	17	24	19					
19:00	34	26	32	25	32	25	25	20	27	21					
20:00	36	28	36	27	36	27	34	26	35	27					
21:00															
22:00															
23:00															
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT							

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT

		ENTRADA© - Environmental Traffic Data Input Summary						
		Table 10 - Route 7 Widening						
		0007-029-128, P102, R202, C502, B610; UPC# 52328/616						
Facility	Dulles Access Road		Direction		E/W	Present Year	2011	# of hours
From	East of Route 7		Map Reference		Map provided	Interim Year	2020	15
To	West of Route 7		County	Fairfax		Design Year	2040	Version 11.09
Traffic and Geometric Data								
Sys. Unit	E	Facility Length (Mi)		1.00	BPR a & b= 1 & 4		Terrain	Level
Input		Existing	Interim Bld	Interim Nbld	Design Bld	Design Nbld	Notes	
Two-way ADT		20,000	22,000	22,000	27,000	27,000	Additional inputs.....	
% Truck ADT		0%	0%	0%	0%	0%		
Adjusted ADT		Hourly	Percent	Truck	Is	Available		
Practical Capacity (phpl)		1,680	1,680	1,680	1,680	1,680		
Facility Type		Freeway	Freeway	Freeway	Freeway	Freeway		
Median Type		Divided	Divided	Divided	Divided	Divided		
EB # of lanes		2	2	2	2	2		
WB # of lanes		2	2	2	2	2		
Outside shldr. width (ft)		6.00	6.00	6.00	6.00	6.00		
Inside shldr. width (ft)		6.00	6.00	6.00	6.00	6.00		
Lane Width (ft)		12.00	12.00	12.00	12.00	12.00		
Access/Intchg Density		0	0	0	0	0		
Number of Signals		0	0	0	0	0		
Signal Quality		-	-	-	-	-		
Cycle Length (sec.)		0	0	0	0	0		
Effective Green (sec.)		0	0	0	0	0	* Ideal FFS calculated using NCHRP-355 Report, PS> 50 mph, FFS=0.88*(PS/1.609)+22 , PS= 35-50 mph, FFS=0.79*(PS/1.609)+19 . PS< 35 mph, FFS=PS. Adjusted FFS= FFS - Facility Correction	
Posted Speed (mph)		55	55	55	55	55		
Ideal FFS (mph)		52	52	52	52	52		
Adjusted FFS (mph)		48	48	48	48	48		
Past, Present & Future Traffic Statistics								
Starting Time	Existing Hourly K-factor (Hourly Traffic/ADT) and Traffic Volume for 15 hours						NOTE: For more K-factors (V_h/V_{24}), see Lookup Tables. These tables (19-36) are extracted from NCHRP Report # 187.	
	Existing	Ex. K-factor	Interim Bld	Interim Nbld	Design Bld	Design Nbld		
0:00								
1:00								
2:00								
3:00								
4:00								
5:00								
6:00	0	7.2%	1,575	1,575	1,932	1,932		
7:00	0	9.3%	2,039	2,039	2,503	2,503		
8:00	0	9.0%	1,970	1,970	2,417	2,417		
9:00	0	6.9%	1,525	1,525	1,872	1,872		
10:00	0	4.5%	1,000	1,000	1,228	1,228		
11:00	0	3.9%	850	850	1,043	1,043		
12:00	0	3.6%	799	799	981	981		
13:00	0	3.9%	859	859	1,054	1,054		
14:00	0	4.7%	1,039	1,039	1,275	1,275		
15:00	0	5.3%	1,173	1,173	1,439	1,439		
16:00	0	6.8%	1,490	1,490	1,829	1,829		
17:00	0	8.1%	1,791	1,791	2,198	2,198		
18:00	0	7.2%	1,580	1,580	1,940	1,940		
19:00	0	4.9%	1,076	1,076	1,321	1,321		
20:00	0	3.4%	749	749	919	919		
21:00								
22:00								
23:00								

**ENTRADA® - Environmental Traffic Data Input Summary****Table 10 - Route 7 Widening**

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Facility	Dulles Access Road			Direction		E/W	Present Year		2011	# of hours
From	East of Route 7			Map Reference		Map provided	Interim Year		2020	15
To	West of Route 7			County	Fairfax		Design Year		2040	Version 11.09
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)									
	EB			WB			Weighted TWO-WAY			Weighted %T= [(EB Vol.*%T) + (WB Vol.*%T)] / 2-way Vol. T: Truck
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	1.2%	0.8%	2.0%	
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	1.1%	0.8%	1.9%	
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	1.0%	0.7%	1.7%	
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	1.2%	1.0%	2.2%	
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.4%	1.5%	2.9%	
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.5%	1.6%	3.1%	
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.6%	3.3%	
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.5%	1.4%	3.0%	
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.4%	3.0%	
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.5%	0.9%	2.4%	
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	1.1%	0.5%	1.6%	
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.5%	0.5%	0.9%	
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.5%	0.4%	1.0%	
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.4%	0.4%	0.8%	
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.5%	0.3%	0.7%	
21:00										
22:00										
23:00										
Starting Time	Directional Split, D-factor									
	EB					WB				
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	68%	68%	68%	68%	68%	32%	32%	32%	32%	32%
7:00	65%	65%	65%	65%	65%	35%	35%	35%	35%	35%
8:00	60%	60%	60%	60%	60%	40%	40%	40%	40%	40%
9:00	66%	66%	66%	66%	66%	34%	34%	34%	34%	34%
10:00	69%	69%	69%	69%	69%	31%	31%	31%	31%	31%
11:00	72%	72%	72%	72%	72%	28%	28%	28%	28%	28%
12:00	74%	74%	74%	74%	74%	26%	26%	26%	26%	26%
13:00	70%	70%	70%	70%	70%	30%	30%	30%	30%	30%
14:00	68%	68%	68%	68%	68%	32%	32%	32%	32%	32%
15:00	59%	59%	59%	59%	59%	41%	41%	41%	41%	41%
16:00	53%	53%	53%	53%	53%	47%	47%	47%	47%	47%
17:00	48%	48%	48%	48%	48%	52%	52%	52%	52%	52%
18:00	44%	44%	44%	44%	44%	56%	56%	56%	56%	56%
19:00	47%	47%	47%	47%	47%	53%	53%	53%	53%	53%
20:00	45%	45%	45%	45%	45%	55%	55%	55%	55%	55%
21:00										
22:00										
23:00										

ENTRADA program is developed by Ed Azimi @VDOT-NOVA/TP

Question, Problem & Comments, Please e-mail @ ed.azimi@vdot.virginia.gov



ENTRADA® - Environmental Traffic Data Output Sheet

Version 11.09

Table 10 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Dulless Access Road				Map Reference		Map provided	
From	East of Route 7				Unit Sys= US , BPR Eq with a= 1.0001 and b= 4			
To	West of Route 7							
City/County	Fairfax							
Date	11/16/2011	Time Span	15 Hours					
					Present Year 2011 ADT		20,000	No-build
					Interim Year 2020 ADT		22,000	22,000
					Design Year 2040 ADT		27,000	27,000

Eastbound										
Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	974	1,071	1,071	1,314	1,314	7.16%	68%	0.7%	0.7%	1.4%
7:00	1,208	1,328	1,328	1,630	1,630	9.27%	65%	0.6%	0.7%	1.3%
8:00	1,079	1,187	1,187	1,456	1,456	8.95%	60%	0.3%	0.5%	0.8%
9:00	917	1,008	1,008	1,238	1,238	6.93%	66%	0.6%	0.8%	1.4%
10:00	625	687	687	843	843	4.55%	69%	1.0%	1.5%	2.5%
11:00	555	611	611	750	750	3.86%	72%	1.3%	1.5%	2.8%
12:00	539	593	593	727	727	3.63%	74%	1.7%	1.7%	3.4%
13:00	543	597	597	733	733	3.91%	70%	1.6%	1.6%	3.2%
14:00	642	706	706	867	867	4.72%	68%	1.6%	1.6%	3.2%
15:00	634	697	697	856	856	5.33%	59%	1.8%	1.1%	2.9%
16:00	719	791	791	971	971	6.77%	53%	1.4%	0.7%	2.1%
17:00	777	854	854	1,049	1,049	8.14%	48%	0.5%	0.7%	1.3%
18:00	635	698	698	857	857	7.18%	44%	0.6%	0.6%	1.2%
19:00	459	505	505	620	620	4.89%	47%	0.6%	0.6%	1.1%
20:00	307	337	337	414	414	3.40%	45%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										

Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	52	47	51	47	51	47	51	46	51	46
7:00	51	47	51	46	51	46	49	45	49	45
8:00	51	47	51	47	51	47	50	46	50	46
9:00	52	47	52	47	52	47	51	47	51	47
10:00	52	48	52	47	52	47	52	47	52	47
11:00	52	48	52	48	52	48	52	47	52	47
12:00	52	48	52	48	52	48	52	47	52	47
13:00	52	48	52	48	52	48	52	47	52	47
14:00	52	47	52	47	52	47	52	47	52	47
15:00	52	47	52	47	52	47	52	47	52	47
16:00	52	47	52	47	52	47	52	47	52	47
17:00	52	47	52	47	52	47	52	47	52	47
18:00	52	48	52	47	52	47	52	47	52	47
19:00	52	48	52	48	52	48	52	48	52	48
20:00	52	48	52	48	52	48	52	48	52	48
21:00										
22:00										
23:00										

* Shown when volume exceeds Max. Service Flow

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ENTRADA® - Environmental Traffic Data Output Sheet

Table 10 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Dulless Access Road							Map Reference		Map provided				
From	East of Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4						
To	West of Route 7							Present Year 2011 ADT	20,000	No-build				
City/County	Fairfax							Interim Year 2020 ADT	22,000	22,000				
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT	27,000	27,000				
Westbound														
Starting Time	Hourly Volume					Existing		Present % Truck						
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.							
								2A-6T	3A+	Total				
0:00														
1:00														
2:00														
3:00														
4:00														
5:00														
6:00	458	504	504	618	618	7.16%	32%	2.4%	1.0%	3.4%				
7:00	646	711	711	873	873	9.27%	35%	2.2%	0.9%	3.1%				
8:00	712	783	783	961	961	8.95%	40%	2.1%	1.0%	3.1%				
9:00	470	517	517	634	634	6.93%	34%	2.4%	1.4%	3.8%				
10:00	285	313	313	384	384	4.55%	31%	2.4%	1.3%	3.6%				
11:00	217	239	239	293	293	3.86%	28%	1.8%	1.8%	3.6%				
12:00	188	207	207	254	254	3.63%	26%	1.7%	1.3%	3.0%				
13:00	238	262	262	321	321	3.91%	30%	1.4%	1.0%	2.4%				
14:00	302	333	333	408	408	4.72%	32%	1.7%	0.9%	2.6%				
15:00	432	475	475	583	583	5.33%	41%	1.1%	0.5%	1.6%				
16:00	636	699	699	858	858	6.77%	47%	0.7%	0.4%	1.0%				
17:00	851	937	937	1,149	1,149	8.14%	52%	0.4%	0.2%	0.6%				
18:00	802	882	882	1,082	1,082	7.18%	56%	0.4%	0.3%	0.7%				
19:00	519	571	571	701	701	4.89%	53%	0.3%	0.2%	0.5%				
20:00	374	412	412	505	505	3.40%	55%	0.4%	0.2%	0.6%				
21:00														
22:00														
23:00														
Starting Time	Hourly Speed (MPH)													
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl					
	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.	Un-Interrupt.	Interrupt.				
0:00														
1:00														
2:00														
3:00														
4:00														
5:00														
6:00	52	48	52	48	52	48	52	48	52	48				
7:00	52	47	52	47	52	47	52	47	52	47				
8:00	52	47	52	47	52	47	52	47	52	47				
9:00	52	48	52	48	52	48	52	47	52	47				
10:00	52	48	52	48	52	48	52	48	52	48				
11:00	52	48	52	48	52	48	52	48	52	48				
12:00	52	48	52	48	52	48	52	48	52	48				
13:00	52	48	52	48	52	48	52	48	52	48				
14:00	52	48	52	48	52	48	52	48	52	48				
15:00	52	48	52	48	52	48	52	48	52	48				
16:00	52	48	52	47	52	47	52	47	52	47				
17:00	52	47	52	47	52	47	51	47	51	47				
18:00	52	47	52	47	52	47	51	47	51	47				
19:00	52	48	52	48	52	48	52	47	52	47				
20:00	52	48	52	48	52	48	52	48	52	48				
21:00														
22:00														
23:00														
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT						

* Shown when volume exceeds Max. Service Flow

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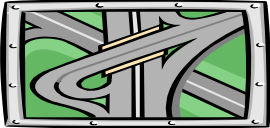
Table 10 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Dulless Access Road							Map Reference		Map provided			
From	East of Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4					
To	West of Route 7							Present Year 2011 ADT		20,000		No-build	
City/County	Fairfax							Interim Year 2020 ADT		22,000		22,000	
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		27,000		27,000	
Two-way													
Starting Time	Hourly Volume					Existing		Present % Truck					
	Existing	Interim Bld	Interim Nbld	Design Bld	Design Nbld	% ADT	Dir. Dist.	Present	% Truck				
								2A-6T	3A+	Total			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	1,431	1,575	1,575	1,932	1,932	7.16%	=	1.2%	0.8%	2.0%			
7:00	1,854	2,039	2,039	2,503	2,503	9.27%	=	1.1%	0.8%	1.9%			
8:00	1,791	1,970	1,970	2,417	2,417	8.95%	=	1.0%	0.7%	1.7%			
9:00	1,386	1,525	1,525	1,872	1,872	6.93%	=	1.2%	1.0%	2.2%			
10:00	909	1,000	1,000	1,228	1,228	4.55%	=	1.4%	1.5%	2.9%			
11:00	772	850	850	1,043	1,043	3.86%	=	1.5%	1.6%	3.1%			
12:00	727	799	799	981	981	3.63%	=	1.7%	1.6%	3.3%			
13:00	781	859	859	1,054	1,054	3.91%	=	1.5%	1.4%	3.0%			
14:00	944	1,039	1,039	1,275	1,275	4.72%	=	1.6%	1.4%	3.0%			
15:00	1,066	1,173	1,173	1,439	1,439	5.33%	=	1.5%	0.9%	2.4%			
16:00	1,355	1,490	1,490	1,829	1,829	6.77%	=	1.1%	0.5%	1.6%			
17:00	1,628	1,791	1,791	2,198	2,198	8.14%	=	0.5%	0.5%	0.9%			
18:00	1,437	1,580	1,580	1,940	1,940	7.18%	=	0.5%	0.4%	1.0%			
19:00	979	1,076	1,076	1,321	1,321	4.89%	=	0.4%	0.4%	0.8%			
20:00	681	749	749	919	919	3.40%	=	0.5%	0.3%	0.7%			
21:00													
22:00													
23:00													
Starting Time	Average Two-way Hourly Speed (MPH)												
	Existing		Interim Bld		Interim Nbld		Design Bld		Design Nbld				
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	52	47	52	47	52	47	51	47	51	47			
7:00	51	47	51	47	51	47	50	46	50	46			
8:00	52	47	51	47	51	47	51	46	51	46			
9:00	52	47	52	47	52	47	51	47	51	47			
10:00	52	48	52	48	52	48	52	47	52	47			
11:00	52	48	52	48	52	48	52	47	52	47			
12:00	52	48	52	48	52	48	52	47	52	47			
13:00	52	48	52	48	52	48	52	47	52	47			
14:00	52	48	52	47	52	47	52	47	52	47			
15:00	52	48	52	47	52	47	52	47	52	47			
16:00	52	47	52	47	52	47	52	47	52	47			
17:00	52	47	52	47	52	47	51	47	51	47			
18:00	52	47	52	47	52	47	52	47	52	47			
19:00	52	48	52	48	52	48	52	48	52	48			
20:00	52	48	52	48	52	48	52	48	52	48			
21:00													
22:00													
23:00													
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT					

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT

		ENTRADA© - Environmental Traffic Data Input Summary						
		Table 11 - Route 7 Widening						
		0007-029-128, P102, R202, C502, B610; UPC# 52328/616						
Facility	Dulless Toll Road, Route 267		Direction		E/W	Present Year	2011	# of hours
From	East of Route 7		Map Reference		Map provided	Interim Year	2020	15
To	West of Route 7		County	Fairfax		Design Year	2040	Version 11.09
Traffic and Geometric Data								
Sys. Unit	E	Facility Length (Mi)		1.00	BPR a & b= 1 & 4		Terrain	Level
Input	Existing	Interim Bld	Interim Nbld	Design Bld	Design Nbld	Notes		
Two-way ADT	131,000	145,000	145,000	180,000	180,000	Additional inputs.....		
% Truck ADT	0%	0%	0%	0%	0%			
Adjusted ADT	Hourly	Percent	Truck	Is	Available			
Practical Capacity (phpl)	1,680	1,680	1,680	1,680	1,680			
Facility Type	Freeway	Freeway	Freeway	Freeway	Freeway			
Median Type	Divided	Divided	Divided	Divided	Divided			
EB # of lanes	4	4	4	4	4			
WB # of lanes	4	4	4	4	4			
Outside shldr. width (ft)	6.00	6.00	6.00	6.00	6.00			
Inside shldr. width (ft)	6.00	6.00	6.00	6.00	6.00			
Lane Width (ft)	12.00	12.00	12.00	12.00	12.00			
Access/Intchg Density	0	0	0	0	0			
Number of Signals	0	0	0	0	0			
Signal Quality	-	-	-	-	-			
Cycle Length (sec.)	0	0	0	0	0			
Effective Green (sec.)	0	0	0	0	0	* Ideal FFS calculated using NCHRP-355 Report, PS> 50 mph, FFS=0.88*(PS/1.609)+22, PS= 35-50 mph, FFS=0.79*(PS/1.609)+19. PS< 35 mph, FFS=PS. Adjusted FFS= FFS - Facility Correction		
Posted Speed (mph)	55	55	55	55	55			
Ideal FFS (mph)	52	52	52	52	52			
Adjusted FFS (mph)	51	51	51	51	51			
Past, Present & Future Traffic Statistics								
Starting Time	Existing Hourly K-factor (Hourly Traffic/ADT) and Traffic Volume for 15 hours						NOTE: For more K-factors (V_h/V_{24}), see Lookup Tables. These tables (19-36) are extracted from NCHRP Report # 187.	
	Existing	Ex. K-factor	Interim Bld	Interim Nbld	Design Bld	Design Nbld		
0:00								
1:00								
2:00								
3:00								
4:00								
5:00								
6:00	0	7.2%	10,378	10,378	12,883	12,883		
7:00	0	9.3%	13,442	13,442	16,687	16,687		
8:00	0	9.0%	12,981	12,981	16,115	16,115		
9:00	0	6.9%	10,052	10,052	12,478	12,478		
10:00	0	4.5%	6,593	6,593	8,184	8,184		
11:00	0	3.9%	5,599	5,599	6,951	6,951		
12:00	0	3.6%	5,269	5,269	6,541	6,541		
13:00	0	3.9%	5,663	5,663	7,029	7,029		
14:00	0	4.7%	6,847	6,847	8,499	8,499		
15:00	0	5.3%	7,729	7,729	9,594	9,594		
16:00	0	6.8%	9,822	9,822	12,193	12,193		
17:00	0	8.1%	11,804	11,804	14,653	14,653		
18:00	0	7.2%	10,417	10,417	12,931	12,931		
19:00	0	4.9%	7,095	7,095	8,807	8,807		
20:00	0	3.4%	4,935	4,935	6,127	6,127		
21:00								
22:00								
23:00								

**ENTRADA® - Environmental Traffic Data Input Summary****Table 11 - Route 7 Widening**

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Facility	Dulles Toll Road, Route 267			Direction		E/W	Present Year		2011	# of hours
From	East of Route 7			Map Reference		Map provided	Interim Year		2020	15
To	West of Route 7			County	Fairfax		Design Year		2040	Version 11.09
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)									
	EB			WB			Weighted TWO-WAY			Weighted %T= [(EB Vol.*%T) + (WB Vol.*%T)] / 2-way Vol. T: Truck
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	1.2%	0.8%	2.0%	
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	1.1%	0.8%	1.9%	
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	1.0%	0.7%	1.7%	
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	1.2%	1.0%	2.2%	
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.4%	1.5%	2.9%	
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.5%	1.6%	3.1%	
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.6%	3.3%	
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.5%	1.4%	3.0%	
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.4%	3.0%	
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.5%	0.9%	2.4%	
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	1.1%	0.5%	1.6%	
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.5%	0.5%	0.9%	
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.5%	0.4%	1.0%	
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.4%	0.4%	0.8%	
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.5%	0.3%	0.7%	
21:00										
22:00										
23:00										
Starting Time	Directional Split, D-factor									
	EB					WB				
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	68%	68%	68%	68%	68%	32%	32%	32%	32%	32%
7:00	65%	65%	65%	65%	65%	35%	35%	35%	35%	35%
8:00	60%	60%	60%	60%	60%	40%	40%	40%	40%	40%
9:00	66%	66%	66%	66%	66%	34%	34%	34%	34%	34%
10:00	69%	69%	69%	69%	69%	31%	31%	31%	31%	31%
11:00	72%	72%	72%	72%	72%	28%	28%	28%	28%	28%
12:00	74%	74%	74%	74%	74%	26%	26%	26%	26%	26%
13:00	70%	70%	70%	70%	70%	30%	30%	30%	30%	30%
14:00	68%	68%	68%	68%	68%	32%	32%	32%	32%	32%
15:00	59%	59%	59%	59%	59%	41%	41%	41%	41%	41%
16:00	53%	53%	53%	53%	53%	47%	47%	47%	47%	47%
17:00	48%	48%	48%	48%	48%	52%	52%	52%	52%	52%
18:00	44%	44%	44%	44%	44%	56%	56%	56%	56%	56%
19:00	47%	47%	47%	47%	47%	53%	53%	53%	53%	53%
20:00	45%	45%	45%	45%	45%	55%	55%	55%	55%	55%
21:00										
22:00										
23:00										

ENTRADA program is developed by Ed Azimi @VDOT-NOVA/TP

Question, Problem & Comments, Please e-mail @ ed.azimi@vdot.virginia.gov



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Table 11 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Dulless Toll Road, Route 267				Map Reference		Map provided	
From	East of Route 7				Unit Sys= US , BPR Eq with a= 1.0001 and b= 4			
To	West of Route 7							
City/County	Fairfax							
Date	11/16/2011	Time Span	15 Hours					
					Present Year 2011 ADT	131,000	No-build	
					Interim Year 2020 ADT	145,000	145,000	
					Design Year 2040 ADT	180,000	180,000	

Eastbound

Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.			
								2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	6,377	7,059	7,059	8,763	8,763	7.16%	68%	0.7%	0.7%	1.4%
7:00	7,910	8,755	8,755	10,869 *	10,869 *	9.27%	65%	0.6%	0.7%	1.3%
8:00	7,066	7,821	7,821	9,709	9,709	8.95%	60%	0.3%	0.5%	0.8%
9:00	6,004	6,646	6,646	8,250	8,250	6.93%	66%	0.6%	0.8%	1.4%
10:00	4,092	4,529	4,529	5,622	5,622	4.55%	69%	1.0%	1.5%	2.5%
11:00	3,638	4,026	4,026	4,998	4,998	3.86%	72%	1.3%	1.5%	2.8%
12:00	3,529	3,906	3,906	4,849	4,849	3.63%	74%	1.7%	1.7%	3.4%
13:00	3,558	3,938	3,938	4,888	4,888	3.91%	70%	1.6%	1.6%	3.2%
14:00	4,205	4,654	4,654	5,777	5,777	4.72%	68%	1.6%	1.6%	3.2%
15:00	4,152	4,596	4,596	5,705	5,705	5.33%	59%	1.8%	1.1%	2.9%
16:00	4,709	5,213	5,213	6,471	6,471	6.77%	53%	1.4%	0.7%	2.1%
17:00	5,087	5,631	5,631	6,990	6,990	8.14%	48%	0.5%	0.7%	1.3%
18:00	4,159	4,603	4,603	5,715	5,715	7.18%	44%	0.6%	0.6%	1.2%
19:00	3,008	3,329	3,329	4,133	4,133	4.89%	47%	0.6%	0.6%	1.1%
20:00	2,008	2,223	2,223	2,759	2,759	3.40%	45%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										

Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	27	26	21	21	21	21	12	11	12	11
7:00	16	16	12	12	12	12	6	6	6	6
8:00	22	22	17	17	17	17	9	9	9	9
9:00	30	29	24	24	24	24	14	14	14	14
10:00	44	43	41	40	41	40	31	31	31	31
11:00	47	45	44	43	44	43	37	35	37	35
12:00	47	45	45	43	45	43	37	36	37	36
13:00	47	45	44	43	44	43	37	36	37	36
14:00	43	41	39	38	39	38	29	28	29	28
15:00	43	42	40	39	40	39	30	29	30	29
16:00	40	39	36	35	36	35	25	24	25	24
17:00	38	37	33	32	33	32	22	21	22	21
18:00	45	43	42	40	42	40	32	32	32	32
19:00	50	48	49	47	49	47	45	43	45	43
20:00	52	50	51	50	51	50	50	49	50	49
21:00										
22:00										
23:00										

* Shown when volume exceeds Max. Service Flow

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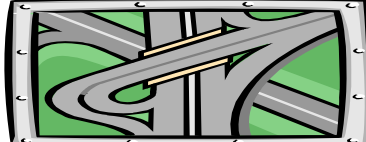


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Table 11 - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Dulless Toll Road, Route 267							Map Reference		Map provided			
From	East of Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4					
To	West of Route 7							Present Year 2011 ADT		131,000	No-build		
City/County	Fairfax							Interim Year 2020 ADT		145,000	145,000		
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		180,000	180,000		
Westbound													
Starting Time	Hourly Volume					Existing		Present % Truck					
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	Present	% Truck				
								2A-6T	3A+	Total			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	2,998	3,319	3,319	4,120	4,120	7.16%	32%	2.4%	1.0%	3.4%			
7:00	4,234	4,687	4,687	5,818	5,818	9.27%	35%	2.2%	0.9%	3.1%			
8:00	4,662	5,160	5,160	6,405	6,405	8.95%	40%	2.1%	1.0%	3.1%			
9:00	3,077	3,406	3,406	4,228	4,228	6.93%	34%	2.4%	1.4%	3.8%			
10:00	1,865	2,064	2,064	2,562	2,562	4.55%	31%	2.4%	1.3%	3.6%			
11:00	1,421	1,573	1,573	1,953	1,953	3.86%	28%	1.8%	1.8%	3.6%			
12:00	1,231	1,363	1,363	1,692	1,692	3.63%	26%	1.7%	1.3%	3.0%			
13:00	1,558	1,725	1,725	2,141	2,141	3.91%	30%	1.4%	1.0%	2.4%			
14:00	1,981	2,193	2,193	2,722	2,722	4.72%	32%	1.7%	0.9%	2.6%			
15:00	2,830	3,133	3,133	3,889	3,889	5.33%	41%	1.1%	0.5%	1.6%			
16:00	4,165	4,610	4,610	5,722	5,722	6.77%	47%	0.7%	0.4%	1.0%			
17:00	5,577	6,173	6,173	7,663	7,663	8.14%	52%	0.4%	0.2%	0.6%			
18:00	5,252	5,813	5,813	7,217	7,217	7.18%	56%	0.4%	0.3%	0.7%			
19:00	3,402	3,766	3,766	4,675	4,675	4.89%	53%	0.3%	0.2%	0.5%			
20:00	2,451	2,713	2,713	3,368	3,368	3.40%	55%	0.4%	0.2%	0.6%			
21:00													
22:00													
23:00													
Starting Time	Hourly Speed (MPH)												
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl				
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.			
0:00													
1:00													
2:00													
3:00													
4:00													
5:00													
6:00	49	48	48	47	48	47	43	42	43	42			
7:00	43	41	39	38	39	38	29	28	29	28			
8:00	39	38	35	34	35	34	24	23	24	23			
9:00	49	47	47	46	47	46	42	41	42	41			
10:00	52	50	51	50	51	50	50	49	50	49			
11:00	52	50	52	50	52	50	52	50	52	50			
12:00	52	51	52	50	52	50	52	50	52	50			
13:00	52	50	52	50	52	50	51	50	51	50			
14:00	52	50	51	50	51	50	50	49	50	49			
15:00	50	49	49	48	49	48	46	45	46	45			
16:00	45	43	42	40	42	40	33	32	33	32			
17:00	34	33	29	29	29	29	18	18	18	18			
18:00	37	36	32	31	32	31	21	21	21	21			
19:00	49	47	47	46	47	46	42	41	42	41			
20:00	51	50	51	49	51	49	49	47	49	47			
21:00													
22:00													
23:00													
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT					

* Shown when volume exceeds Max. Service Flow

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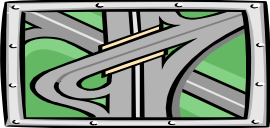
Table 11 - Route 7 Widening

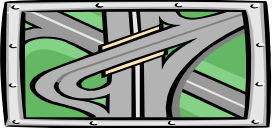
0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Dulless Toll Road, Route 267							Map Reference		Map provided		
From	East of Route 7							Unit Sys= US , BPR Eq with a= 1.0001 and b= 4				
To	West of Route 7							Present Year 2011 ADT		131,000	No-build	
City/County	Fairfax							Interim Year 2020 ADT		145,000	145,000	
Date	11/16/2011	Time Span	15 Hours					Design Year 2040 ADT		180,000	180,000	
Two-way												
Starting Time	Hourly Volume					Existing		Present % Truck				
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	2A-6T	3A+	Total		
0:00												
1:00												
2:00												
3:00												
4:00												
5:00												
6:00	9,376	10,378	10,378	12,883	12,883	7.16%	=	1.2%	0.8%	2.0%		
7:00	12,144	13,442	13,442	16,687	16,687	9.27%	=	1.1%	0.8%	1.9%		
8:00	11,728	12,981	12,981	16,115	16,115	8.95%	=	1.0%	0.7%	1.7%		
9:00	9,081	10,052	10,052	12,478	12,478	6.93%	=	1.2%	1.0%	2.2%		
10:00	5,956	6,593	6,593	8,184	8,184	4.55%	=	1.4%	1.5%	2.9%		
11:00	5,059	5,599	5,599	6,951	6,951	3.86%	=	1.5%	1.6%	3.1%		
12:00	4,760	5,269	5,269	6,541	6,541	3.63%	=	1.7%	1.6%	3.3%		
13:00	5,116	5,663	5,663	7,029	7,029	3.91%	=	1.5%	1.4%	3.0%		
14:00	6,186	6,847	6,847	8,499	8,499	4.72%	=	1.6%	1.4%	3.0%		
15:00	6,983	7,729	7,729	9,594	9,594	5.33%	=	1.5%	0.9%	2.4%		
16:00	8,874	9,822	9,822	12,193	12,193	6.77%	=	1.1%	0.5%	1.6%		
17:00	10,664	11,804	11,804	14,653	14,653	8.14%	=	0.5%	0.5%	0.9%		
18:00	9,411	10,417	10,417	12,931	12,931	7.18%	=	0.5%	0.4%	1.0%		
19:00	6,410	7,095	7,095	8,807	8,807	4.89%	=	0.4%	0.4%	0.8%		
20:00	4,459	4,935	4,935	6,127	6,127	3.40%	=	0.5%	0.3%	0.7%		
21:00												
22:00												
23:00												
Starting Time	Average Two-way Hourly Speed (MPH)											
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl			
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.		
0:00												
1:00												
2:00												
3:00												
4:00												
5:00												
6:00	34	33	30	29	30	29	22	21	22	21		
7:00	25	25	21	21	21	21	14	13	14	13		
8:00	29	28	24	24	24	24	15	14	15	14		
9:00	36	35	32	31	32	31	24	23	24	23		
10:00	46	45	44	43	44	43	37	36	37	36		
11:00	48	47	46	45	46	45	41	40	41	40		
12:00	48	47	46	45	46	45	41	40	41	40		
13:00	48	47	47	45	47	45	41	40	41	40		
14:00	46	44	43	42	43	42	36	35	36	35		
15:00	46	45	44	42	44	42	37	35	37	35		
16:00	42	41	38	37	38	37	29	28	29	28		
17:00	36	35	31	30	31	30	20	20	20	20		
18:00	40	39	36	35	36	35	26	25	26	25		
19:00	49	48	48	47	48	47	43	42	43	42		
20:00	51	50	51	50	51	50	50	48	50	48		
21:00												
22:00												
23:00												
* Shown when volume exceeds Max. Service Flow								ENTRADA, Version 11.09, VDOT				

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT

		ENTRADA© - Environmental Traffic Data Input Summary						
		Table 12A - Route 7 Widening						
		0007-029-128, P102, R202, C502, B610; UPC# 52328/616						
Facility	Dulles Toll Road Ramp		Direction		E/W	Present Year	2011	# of hours
From	Eastbound DTR		Map Reference		Map provided	Interim Year	2020	15
To	Route 7		County	Fairfax		Design Year	2040	Version 11.09
Traffic and Geometric Data								
Sys. Unit	E	Facility Length (Mi)		1.00	BPR a & b= 1 & 4		Terrain	Level
Input		Existing	Interim Bld	Interim Nbld	Design Bld	Design Nbld	Notes	
Two-way ADT		20,000	23,000	23,000	32,000	29,000	Additional inputs..... * Ideal FFS calculated using NCHRP-355 Report, PS> 50 mph, FFS=0.88*(PS/1.609)+22, PS= 35-50 mph, FFS=0.79*(PS/1.609)+19. PS< 35 mph, FFS=PS. Adjusted FFS= FFS - Facility Correction	
% Truck ADT		0%	0%	0%	0%	0%		
Adjusted ADT		Hourly	Percent	Truck	Is	Available		
Practical Capacity (phpl)		1,440	1,440	1,440	1,440	1,440		
Facility Type		Ramp	Ramp	Ramp	Ramp	Ramp		
Median Type		Divided	Divided	Divided	Divided	Divided		
Ramp # of lanes		1	1	1	1	1		
N/A		Select...	Select...	Select...	Select...	Select...		
Outside shldr. width (ft)		6.00	6.00	6.00	6.00	6.00		
Inside shldr. width (ft)		6.00	6.00	6.00	6.00	6.00		
Lane Width (ft)		12.00	12.00	12.00	12.00	12.00		
Access/Intchg Density		0	0	0	0	0		
Number of Signals		0	0	0	0	0		
Signal Quality		-	-	-	-	-		
Cycle Length (sec.)		0	0	0	0	0		
Effective Green (sec.)		0	0	0	0	0		
Posted Speed (mph)		30	30	30	30	30		
Ideal FFS (mph)		30	30	30	30	30		
Adjusted FFS (mph)		30	30	30	30	30		
Past, Present & Future Traffic Statistics								
Starting Time	Existing Hourly K-factor (Hourly Traffic/ADT) and Traffic Volume for 15 hours						NOTE: For more K-factors (V_h/V_{24}), see Lookup Tables. These tables (19-36) are extracted from NCHRP Report # 187.	
	Existing	Ex. K-factor	Interim Bld	Interim Nbld	Design Bld	Design Nbld		
0:00								
1:00								
2:00								
3:00								
4:00								
5:00								
6:00	0	7.2%	1,646	1,646	2,290	2,076		
7:00	0	9.3%	2,132	2,132	2,967	2,688		
8:00	0	9.0%	2,059	2,059	2,865	2,596		
9:00	0	6.9%	1,594	1,594	2,218	2,010		
10:00	0	4.5%	1,046	1,046	1,455	1,319		
11:00	0	3.9%	888	888	1,236	1,120		
12:00	0	3.6%	836	836	1,163	1,054		
13:00	0	3.9%	898	898	1,250	1,133		
14:00	0	4.7%	1,086	1,086	1,511	1,369		
15:00	0	5.3%	1,226	1,226	1,706	1,546		
16:00	0	6.8%	1,558	1,558	2,168	1,964		
17:00	0	8.1%	1,872	1,872	2,605	2,361		
18:00	0	7.2%	1,652	1,652	2,299	2,083		
19:00	0	4.9%	1,125	1,125	1,566	1,419		
20:00	0	3.4%	783	783	1,089	987		
21:00								
22:00								
23:00								

		ENTRADA® - Environmental Traffic Data Input Summary								
		Table 12A - Route 7 Widening								
		0007-029-128, P102, R202, C502, B610; UPC# 52328/616								
Facility	Dulles Toll Road Ramp			Direction		E/W	Present Year		2011	# of hours
From	Eastbound DTR			Map Reference		Map provided	Interim Year		2020	15
To	Route 7			County	Fairfax		Design Year		2040	Version 11.09
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)									
	EB			WB			Weighted TWO-WAY			Weighted $\%T = [(EB \text{ Vol.} * \%T) + (WB \text{ Vol.} * \%T)] / 2\text{-way Vol.}$ T: Truck
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	0.7%	0.7%	1.4%	
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	0.6%	0.7%	1.3%	
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	0.3%	0.5%	0.8%	
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	0.6%	0.8%	1.4%	
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.0%	1.5%	2.5%	
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.3%	1.5%	2.8%	
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.7%	3.4%	
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.6%	1.6%	3.2%	
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.6%	3.2%	
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.8%	1.1%	2.9%	
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	1.4%	0.7%	2.1%	
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.5%	0.7%	1.3%	
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.6%	0.6%	1.2%	
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.6%	0.6%	1.1%	
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.5%	0.4%	0.9%	
21:00										
22:00										
23:00										
Starting Time	Directional Split, D-factor									
	EB					WB				
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
7:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
8:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
9:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
10:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
11:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
12:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
13:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
14:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
15:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
16:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
17:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
18:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
19:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
20:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
21:00										
22:00										
23:00										



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Table 12A - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Dulless Toll Road Ramp				Map Reference		Map provided	
From	Eastbound DTR				Unit Sys= US , BPR Eq with a= 1.0001 and b= 4			
To	Route 7				Present Year 2011 ADT			
City/County	Fairfax				Interim Year 2020 ADT			
Date	11/16/2011	Time Span	15 Hours		Design Year 2040 ADT			
					20,000		No-build	
					23,000		23,000	
					32,000		29,000	

Ramp										
Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.	2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	1,431	1,646	1,646	2,290 *	2,076 *	7.16%	100%	0.7%	0.7%	1.4%
7:00	1,854	2,132 *	2,132 *	2,967 *	2,688 *	9.27%	100%	0.6%	0.7%	1.3%
8:00	1,791	2,059 *	2,059 *	2,865 *	2,596 *	8.95%	100%	0.3%	0.5%	0.8%
9:00	1,386	1,594	1,594	2,218 *	2,010	6.93%	100%	0.6%	0.8%	1.4%
10:00	909	1,046	1,046	1,455	1,319	4.55%	100%	1.0%	1.5%	2.5%
11:00	772	888	888	1,236	1,120	3.86%	100%	1.3%	1.5%	2.8%
12:00	727	836	836	1,163	1,054	3.63%	100%	1.7%	1.7%	3.4%
13:00	781	898	898	1,250	1,133	3.91%	100%	1.6%	1.6%	3.2%
14:00	944	1,086	1,086	1,511	1,369	4.72%	100%	1.6%	1.6%	3.2%
15:00	1,066	1,226	1,226	1,706	1,546	5.33%	100%	1.8%	1.1%	2.9%
16:00	1,355	1,558	1,558	2,168 *	1,964	6.77%	100%	1.4%	0.7%	2.1%
17:00	1,628	1,872	1,872	2,605 *	2,361 *	8.14%	100%	0.5%	0.7%	1.3%
18:00	1,437	1,652	1,652	2,299 *	2,083 *	7.18%	100%	0.6%	0.6%	1.2%
19:00	979	1,125	1,125	1,566	1,419	4.89%	100%	0.6%	0.6%	1.1%
20:00	681	783	783	1,089	987	3.40%	100%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										

Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	14	14	10	10	10	10	4	4	5	5
7:00	7	7	5	5	5	5	1	1	2	2
8:00	8	8	5	5	5	5	2	2	2	2
9:00	15	15	11	11	11	11	4	4	5	5
10:00	25	25	22	22	22	22	13	13	15	15
11:00	27	27	25	25	25	25	17	17	20	20
12:00	27	27	26	26	26	26	18	18	21	21
13:00	27	27	25	25	25	25	16	16	19	19
14:00	24	24	20	20	20	20	11	11	14	14
15:00	21	21	17	17	17	17	8	8	11	11
16:00	15	15	11	11	11	11	4	4	6	6
17:00	10	10	7	7	7	7	2	2	3	3
18:00	14	14	10	10	10	10	4	4	5	5
19:00	24	24	21	21	21	21	12	12	14	14
20:00	28	28	27	27	27	27	22	22	24	24
21:00										
22:00										
23:00										

* Shown when volume exceeds Max. Service Flow

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**ENTRADA® - Environmental Traffic Data Input Summary****Table 12B - Route 7 Widening**

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Facility	Dulles Toll Road Ramp			Direction		E/W	Present Year		2011	# of hours
From	Eastbound Route 7			Map Reference		Map provided	Interim Year		2020	15
To	Eastbound DTR			County	Fairfax		Design Year		2040	Version 11.09
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)									
	EB			WB			Weighted TWO-WAY			Weighted %T= [(EB Vol.*%T) + (WB Vol.*%T)] / 2-way Vol. T: Truck
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	0.7%	0.7%	1.4%	
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	0.6%	0.7%	1.3%	
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	0.3%	0.5%	0.8%	
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	0.6%	0.8%	1.4%	
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.0%	1.5%	2.5%	
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.3%	1.5%	2.8%	
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.7%	3.4%	
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.6%	1.6%	3.2%	
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.6%	3.2%	
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.8%	1.1%	2.9%	
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	1.4%	0.7%	2.1%	
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.5%	0.7%	1.3%	
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.6%	0.6%	1.2%	
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.6%	0.6%	1.1%	
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.5%	0.4%	0.9%	
21:00										
22:00										
23:00										
Starting Time	Directional Split, D-factor									
	EB					WB				
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
7:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
8:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
9:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
10:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
11:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
12:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
13:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
14:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
15:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
16:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
17:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
18:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
19:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
20:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
21:00										
22:00										
23:00										

ENTRADA program is developed by Ed Azimi @VDOT-NOVA/TP

Question, Problem & Comments, Please e-mail @ ed.azimi@vdot.virginia.gov



ENTRADA® - Environmental Traffic Data Output Sheet

Version 11.09

Table 12B - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Dulless Toll Road Ramp				Map Reference		Map provided	
From	Eastbound Route 7				Unit Sys= US , BPR Eq with a= 1.0001 and b= 4			
To	Eastbound DTR				Present Year 2011 ADT			
City/County	Fairfax				Interim Year 2020 ADT			
Date	11/16/2011	Time Span	15 Hours		Design Year 2040 ADT			
					2,200		No-build	
					3,000		3,000	
					3,000		3,000	

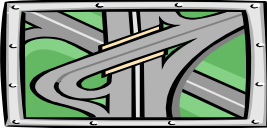
Ramp

Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.			
								2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	157	215	215	215	215	7.16%	100%	0.7%	0.7%	1.4%
7:00	204	278	278	278	278	9.27%	100%	0.6%	0.7%	1.3%
8:00	197	269	269	269	269	8.95%	100%	0.3%	0.5%	0.8%
9:00	153	208	208	208	208	6.93%	100%	0.6%	0.8%	1.4%
10:00	100	136	136	136	136	4.55%	100%	1.0%	1.5%	2.5%
11:00	85	116	116	116	116	3.86%	100%	1.3%	1.5%	2.8%
12:00	80	109	109	109	109	3.63%	100%	1.7%	1.7%	3.4%
13:00	86	117	117	117	117	3.91%	100%	1.6%	1.6%	3.2%
14:00	104	142	142	142	142	4.72%	100%	1.6%	1.6%	3.2%
15:00	117	160	160	160	160	5.33%	100%	1.8%	1.1%	2.9%
16:00	149	203	203	203	203	6.77%	100%	1.4%	0.7%	2.1%
17:00	179	244	244	244	244	8.14%	100%	0.5%	0.7%	1.3%
18:00	158	216	216	216	216	7.18%	100%	0.6%	0.6%	1.2%
19:00	108	147	147	147	147	4.89%	100%	0.6%	0.6%	1.1%
20:00	75	102	102	102	102	3.40%	100%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										

Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	25	25	25	25	25	25	25	25	25	25
7:00	25	25	25	25	25	25	25	25	25	25
8:00	25	25	25	25	25	25	25	25	25	25
9:00	25	25	25	25	25	25	25	25	25	25
10:00	25	25	25	25	25	25	25	25	25	25
11:00	25	25	25	25	25	25	25	25	25	25
12:00	25	25	25	25	25	25	25	25	25	25
13:00	25	25	25	25	25	25	25	25	25	25
14:00	25	25	25	25	25	25	25	25	25	25
15:00	25	25	25	25	25	25	25	25	25	25
16:00	25	25	25	25	25	25	25	25	25	25
17:00	25	25	25	25	25	25	25	25	25	25
18:00	25	25	25	25	25	25	25	25	25	25
19:00	25	25	25	25	25	25	25	25	25	25
20:00	25	25	25	25	25	25	25	25	25	25
21:00										
22:00										
23:00										

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT

		ENTRADA© - Environmental Traffic Data Input Summary								
		Table 12C - Route 7 Widening								
		0007-029-128, P102, R202, C502, B610; UPC# 52328/616								
Facility	Dulles Toll Road Ramp			Direction		E/W	Present Year		2011	# of hours
From	Eastbound Route 7			Map Reference		Map provided	Interim Year		2020	15
To	Westbound DTR			County	Fairfax		Design Year		2040	Version 11.09
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)									
	EB			WB			Weighted TWO-WAY			Weighted $\%T = [(EB \text{ Vol.} * \%T) + (WB \text{ Vol.} * \%T)] / 2\text{-way Vol.}$ T: Truck
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	0.7%	0.7%	1.4%	
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	0.6%	0.7%	1.3%	
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	0.3%	0.5%	0.8%	
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	0.6%	0.8%	1.4%	
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.0%	1.5%	2.5%	
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.3%	1.5%	2.8%	
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.7%	3.4%	
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.6%	1.6%	3.2%	
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.6%	3.2%	
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.8%	1.1%	2.9%	
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	1.4%	0.7%	2.1%	
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.5%	0.7%	1.3%	
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.6%	0.6%	1.2%	
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.6%	0.6%	1.1%	
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.5%	0.4%	0.9%	
21:00										
22:00										
23:00										
Starting Time	Directional Split, D-factor									
	EB					WB				
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
7:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
8:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
9:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
10:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
11:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
12:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
13:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
14:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
15:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
16:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
17:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
18:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
19:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
20:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
21:00										
22:00										
23:00										



ENTRADA® - Environmental Traffic Data Output Sheet

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Table 12C - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Dulless Toll Road Ramp				Map Reference		Map provided	
From	Eastbound Route 7				Unit Sys= US , BPR Eq with a= 1.0001 and b= 4			
To	Westbound DTR				Present Year 2011 ADT			
City/County	Fairfax				Interim Year 2020 ADT			
Date	11/16/2011	Time Span	15 Hours		Design Year 2040 ADT			
					15,000	No-build		
					17,000	17,000		
					24,000	22,000		

Ramp

Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.			
								2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	1,074	1,217	1,217	1,718	1,575	7.16%	100%	0.7%	0.7%	1.4%
7:00	1,391	1,576	1,576	2,225 *	2,039 *	9.27%	100%	0.6%	0.7%	1.3%
8:00	1,343	1,522	1,522	2,149 *	1,970	8.95%	100%	0.3%	0.5%	0.8%
9:00	1,040	1,179	1,179	1,664	1,525	6.93%	100%	0.6%	0.8%	1.4%
10:00	682	773	773	1,091	1,000	4.55%	100%	1.0%	1.5%	2.5%
11:00	579	656	656	927	850	3.86%	100%	1.3%	1.5%	2.8%
12:00	545	618	618	872	799	3.63%	100%	1.7%	1.7%	3.4%
13:00	586	664	664	937	859	3.91%	100%	1.6%	1.6%	3.2%
14:00	708	803	803	1,133	1,039	4.72%	100%	1.6%	1.6%	3.2%
15:00	800	906	906	1,279	1,173	5.33%	100%	1.8%	1.1%	2.9%
16:00	1,016	1,152	1,152	1,626	1,490	6.77%	100%	1.4%	0.7%	2.1%
17:00	1,221	1,384	1,384	1,954	1,791	8.14%	100%	0.5%	0.7%	1.3%
18:00	1,078	1,221	1,221	1,724	1,580	7.18%	100%	0.6%	0.6%	1.2%
19:00	734	832	832	1,174	1,076	4.89%	100%	0.6%	0.6%	1.1%
20:00	511	579	579	817	749	3.40%	100%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										

Hourly Speed (MPH)

Starting Time	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	22	22	19	19	19	19	9	9	11	11
7:00	15	15	11	11	11	11	4	4	5	5
8:00	16	16	13	13	13	13	5	5	6	6
9:00	23	23	20	20	20	20	10	10	12	12
10:00	28	28	27	27	27	27	21	21	23	23
11:00	29	29	28	28	28	28	24	24	26	26
12:00	29	29	29	29	29	29	25	25	26	26
13:00	29	29	28	28	28	28	24	24	25	25
14:00	28	28	26	26	26	26	19	19	22	22
15:00	26	26	25	25	25	25	16	16	19	19
16:00	23	23	20	20	20	20	10	10	12	12
17:00	19	19	15	15	15	15	6	6	8	8
18:00	22	22	19	19	19	19	9	9	11	11
19:00	28	28	27	27	27	27	20	20	22	22
20:00	29	29	29	29	29	29	27	27	28	28
21:00										
22:00										
23:00										

* Shown when volume exceeds Max. Service Flow

ENTRADA, Version 11.09, VDOT

**ENTRADA® - Environmental Traffic Data Input Summary****Table 12D - Route 7 Widening**

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Facility	Dulles Toll Road Ramp			Direction		E/W	Present Year		2011	# of hours
From	Westbound DTR			Map Reference		Map provided	Interim Year		2020	15
To	Route 7			County	Fairfax		Design Year		2040	Version 11.09
Starting Time	Percent Hourly Truck Traffic (Truck Vol./Total Vol.)									
	EB			WB			Weighted TWO-WAY			Weighted %T= [(EB Vol.*%T) + (WB Vol.*%T)] / 2-way Vol. T: Truck
	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	2X-6T	3X +	Total Truck	
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	0.7%	0.7%	1.4%	2.4%	1.0%	3.4%	0.7%	0.7%	1.4%	
7:00	0.6%	0.7%	1.3%	2.2%	0.9%	3.1%	0.6%	0.7%	1.3%	
8:00	0.3%	0.5%	0.8%	2.1%	1.0%	3.1%	0.3%	0.5%	0.8%	
9:00	0.6%	0.8%	1.4%	2.4%	1.4%	3.8%	0.6%	0.8%	1.4%	
10:00	1.0%	1.5%	2.5%	2.4%	1.3%	3.6%	1.0%	1.5%	2.5%	
11:00	1.3%	1.5%	2.8%	1.8%	1.8%	3.6%	1.3%	1.5%	2.8%	
12:00	1.7%	1.7%	3.4%	1.7%	1.3%	3.0%	1.7%	1.7%	3.4%	
13:00	1.6%	1.6%	3.2%	1.4%	1.0%	2.4%	1.6%	1.6%	3.2%	
14:00	1.6%	1.6%	3.2%	1.7%	0.9%	2.6%	1.6%	1.6%	3.2%	
15:00	1.8%	1.1%	2.9%	1.1%	0.5%	1.6%	1.8%	1.1%	2.9%	
16:00	1.4%	0.7%	2.1%	0.7%	0.4%	1.0%	1.4%	0.7%	2.1%	
17:00	0.5%	0.7%	1.3%	0.4%	0.2%	0.6%	0.5%	0.7%	1.3%	
18:00	0.6%	0.6%	1.2%	0.4%	0.3%	0.7%	0.6%	0.6%	1.2%	
19:00	0.6%	0.6%	1.1%	0.3%	0.2%	0.5%	0.6%	0.6%	1.1%	
20:00	0.5%	0.4%	0.9%	0.4%	0.2%	0.6%	0.5%	0.4%	0.9%	
21:00										
22:00										
23:00										
Starting Time	Directional Split, D-factor									
	EB					WB				
	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld	Existing	Interim Bld	Interim Nblld	Design Bld	Design Nblld
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
7:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
8:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
9:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
10:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
11:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
12:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
13:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
14:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
15:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
16:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
17:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
18:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
19:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
20:00	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%
21:00										
22:00										
23:00										

ENTRADA program is developed by Ed Azimi @VDOT-NOVA/TP

Question, Problem & Comments, Please e-mail @ ed.azimi@vdot.virginia.gov



ENTRADA® - Environmental Traffic Data Output Sheet

Version 11.09

Table 12D - Route 7 Widening

0007-029-128, P102, R202, C502, B610; UPC# 52328/616

Route	Dulless Toll Road Ramp				Map Reference		Map provided	
From	Westbound DTR				Unit Sys= US , BPR Eq with a= 1.0001 and b= 4			
To	Route 7				Present Year 2011 ADT			
City/County	Fairfax				Interim Year 2020 ADT			
Date	11/16/2011	Time Span	15 Hours		Design Year 2040 ADT			
					8,000		No-build	
					9,000		9,000	
					13,000		12,000	

Ramp										
Starting Time	Hourly Volume					Existing		Present hourly % truck		
	Existing	Interim Bld	Interim Nbl	Design Bld	Design Nbl	% ADT	Dir. Dist.			
								2A-6T	3A+	Total
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	573	644	644	930	859	7.16%	100%	0.7%	0.7%	1.4%
7:00	742	834	834	1,205	1,112	9.27%	100%	0.6%	0.7%	1.3%
8:00	716	806	806	1,164	1,074	8.95%	100%	0.3%	0.5%	0.8%
9:00	555	624	624	901	832	6.93%	100%	0.6%	0.8%	1.4%
10:00	364	409	409	591	546	4.55%	100%	1.0%	1.5%	2.5%
11:00	309	348	348	502	463	3.86%	100%	1.3%	1.5%	2.8%
12:00	291	327	327	472	436	3.63%	100%	1.7%	1.7%	3.4%
13:00	312	351	351	508	469	3.91%	100%	1.6%	1.6%	3.2%
14:00	378	425	425	614	567	4.72%	100%	1.6%	1.6%	3.2%
15:00	426	480	480	693	640	5.33%	100%	1.8%	1.1%	2.9%
16:00	542	610	610	881	813	6.77%	100%	1.4%	0.7%	2.1%
17:00	651	733	733	1,058	977	8.14%	100%	0.5%	0.7%	1.3%
18:00	575	647	647	934	862	7.18%	100%	0.6%	0.6%	1.2%
19:00	391	440	440	636	587	4.89%	100%	0.6%	0.6%	1.1%
20:00	272	306	306	442	408	3.40%	100%	0.5%	0.4%	0.9%
21:00										
22:00										
23:00										

Starting Time	Hourly Speed (MPH)									
	Existing		Interim Bld		Interim Nbl		Design Bld		Design Nbl	
	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.	Un-Interrup.	Interrup.
0:00										
1:00										
2:00										
3:00										
4:00										
5:00										
6:00	29	29	29	29	29	29	25	25	26	26
7:00	28	28	27	27	27	27	19	19	21	21
8:00	28	28	27	27	27	27	20	20	22	22
9:00	29	29	29	29	29	29	25	25	27	27
10:00	30	30	30	30	30	30	29	29	29	29
11:00	30	30	30	30	30	30	29	29	30	30
12:00	30	30	30	30	30	30	29	29	30	30
13:00	30	30	30	30	30	30	29	29	30	30
14:00	30	30	30	30	30	30	29	29	29	29
15:00	30	30	29	29	29	29	28	28	28	28
16:00	29	29	29	29	29	29	25	25	27	27
17:00	29	29	28	28	28	28	22	22	24	24
18:00	29	29	29	29	29	29	25	25	26	26
19:00	30	30	30	30	30	30	29	29	29	29
20:00	30	30	30	30	30	30	30	30	30	30
21:00										
22:00										
23:00										

* Shown when volume exceeds Max. Service Flow

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